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The New Fifth Avenue

Among the many radical changes which have been brought about during the past six years in New York City, the most radical and the most significant are those which have taken place on Fifth Avenue. That thoroughfare has been completely transformed. It has been transformed economically by an increase in the value of real estate, amounting to 250 per cent. and over. It has been transformed architecturally by the erection of a score of new and imposing buildings and twice as many small ones. It has been transformed in use by the intrusion of a large number of more popular stores. And finally it has been transformed in the human spectacle it presents by a great increase in the number of pedestrians. From being a comparatively quiet avenue, occupied in part by old brown stone residences and in part by a carefully selected group of special stores, it has become a bustling thoroughfare, jammed with carriages and motors, crowded with shoppers and passers-by, and redolent with the fumes of wealth and business.

The transformation of Fifth Avenue between Twenty-sixth and Fiftieth Streets in a very real way symbolizes the transformation which has been taking place in the whole city of New York. Since 1901 New York has become all the more distinguished among American cities for the concentration, which has taken place therein, of wealth and business. During these years rich Americans from every part of the Union have more than ever come to live in New York, and even if they retained their residence elsewhere they have been persuaded by business or pleasure to spend a larger portion of their time in the city. Coincident with this change, the number of very wealthy people among the permanent residents of New York has materially increased, and the extravagance of their tastes has not lagged behind the swelling of their bank accounts. Consequently the market for expensive goods of all kinds has been enormously enlarged, and at the very time of its enlargement, it has been more than ever concentrated on Fifth Avenue. In 1901 many of the shops which appealed to well-to-do customers were situated either on Twenty-third Street or on Broadway south of Twenty-third Street. But during the last six years the majority of these stores have sought new locations on Fifth Avenue from Twenty-sixth Street north, so that contemporaneous with the enlargement of the demand for expensive fabrics came a shifting to Fifth Avenue of the most important tradesmen who supplied the demand. Thus Fifth Avenue has become more and more strongly characterized in proportion as it has become more and more busy. It is, indeed, the only American street devoted for over a mile of its length exclusively to retail trade of a high class which has taken on a specific character. It has none of the air of quiet exclusiveness which characterizes Bond Street in London or the Rue de la Paix in Paris. Indeed it bears the same relation to the Rue de la Paix and Bond Street as the Hotel Ritz or Claridges might bear to the Waldorf-

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Astoria. Compared to its European analogues, it is big, bustling, somewhat barbaric and decidedly miscellaneous. It provides, as has been said of the Waldorf-Astoria, exclusiveness (in the matter of retail trade) for the masses; and the wonder is that the masses can pay the price. One gets the impression on Fifth Avenue that all the world is there, that all the world has more money than it needs, and that all the world rather likes to exhibit its superfluity.



VIEW ON FIFTH AVENUE LOOKING NORTH FROM 34TH ST., AND SHOWING THE KNICKERBOCKER TRUST, ALTMAN, TIFFANY AND GORHAM BUILDINGS.

The effect of this concentration of the expensive retail trade upon real estate values has been so great, and its consequences are, from the architectural point of view, so important, that it must not be overlooked. In 1901 inside lots on Fifth Avenue, measuring 25 x 100 feet, were worth about $125,000. On some blocks they were more, and on other blocks they were less, but their average value per square foot was somewhere between $50 and $60. In 1902 and 1903 the prices of these interior lots jumped up to $200,000 and to $250,000. In 1904, they frequently reached $300,000; and it was confidently predicted by real estate experts that business could not afford any higher rentals. But the end had not come. These inside lots are now worth from $350,000 to $400,000 accord-

ing to location—on the average about $150 a square foot. At the same time the value of corner lots has swollen to not far from $200 a square foot, and in certain instances to more. We believe and particular blocks on Wall Street, on lower Broadway, and even on upper Broadway ,in the vicinity of Greeley Square, the value of which are higher than those on Fifth Avenue. Small lots



THE ALTMAN BUILDING.
Fifth Avenue and 35th Street, New York. Trowbridge & Livingston, Architects.

there is nothing precisely similar to this range of real estate values anywhere else in the world. There is certainly nothing approaching it anywhere in this country. There are, of course, individual corners containing less than 1,000 square feet have sold in New York for as much as $400 a square foot, but on these same streets property three blocks away will be selling for less than $50 a square foot.

The remarkable thing about the scale of values on Fifth Avenue is that it extends on both sides of a street for over a mile in length, and that it is maintained almost exclusively by retail trade. In the heart of the financial district of the financial centre of the United States, values that average over $300 a square foot, are far less extraordinary than values of from $150 to $200 a square foot for a strip of real estate on both sides of an avenue one mile and a quarter in length. There is nothing similar to it on Broadway in New York; and we doubt whether there is anything similar to it in Paris or London. It requires the peculiarly American combination of many people with much money—all of them spending with comparative profusion—to enable part of the retail trade of even a metropolitan city to maintain such values.

This increase in values has naturally had a most influential effect upon the nature of the business transacted on Fifth Avenue. In 1901 the stores were occupied in large measure by dealers in furniture and house-fabrics, by milliners, by picture-dealers, by jewelers, and by stores which sold a variety of *objets d'art.* The second floors were usually occupied by tailoring and kindred establishments, while thereabove, as like as not, the rooms were let out as lodgings. The increases in value have forced some of the furniture and picture-dealers, who need a large amount of space, to seek locations on the side streets contiguous to Fifth Avenue, and something of the same fate has attended a number of small shops which supply a limited class of objects to a limited number of customers. The small milliner, tailor and curiosity shops have overflowed to the side streets, and their places have been taken by business with a larger patronage. The largest jewelers and silver-smiths, several of the largest piano-manufacturers, the best hat and gentlemen's furnishing stores, some of the best music and linen shops, as well as a large proportion of the picture and furniture dealers, now occupy the stores on the street, and the upper floors are almost exclusively given over to offices. It is noticeable, however, that comparatively few general dry-goods stores have as yet intruded on Fifth Avenue. In fact the only one on the avenue itself is Altman's, but the new McCreery shop on Thirty-fourth Street is for all practical purposes on the avenue. The failure of some of the more expensive general dry-goods shops which still remain south of Twenty-third Street to move into the chosen district is to be explained rather by lack of a way than lack of a will. It would now be practically impossible for any competitor of Altman's to secure a block front or even half a block front in any desirable part of the avenue. Such sites cannot be had at any possible price, because so many of the best corners have already been purchased by business houses with the intention of maintaining at that point the permanent location of their stores. The only other available block front on the avenue is controlled by Mr. Altman himself.

It was necessary to enter into this description of the economic conditions of the avenue, because they explain the architectural changes which have been taking place. The appearance of the thoroughfare has been as utterly transformed as has its economic standing. In 1901 Fifth Avenue still strongly suggested the time when it was lined with rows of dull, monotonous, high-stoop brownstone houses. It had, indeed, for fifteen years been gradually altering into a business thoroughfare. The fronts of many of the old dwellings had been knocked out and store-windows installed. In a few cases, such as those of the old Astor houses, at Thirty-fourth Street, the dwellings had been torn down to make room for commercial buildings, but at that time more than nine-tenths of the corners on the avenue had suffered no violent change. The old Stewart house, although doomed, was still standing, and the two easterly corners of Thirty-fourth street, while devoted to business purposes, had merely been slightly altered to these ends. In spite of the Waldorf-Astoria, the whole atmosphere of this most important corner on the avenue was still peaceable, and recognizable to a New Yorker of the

seventies. There was nothing about it to foreshadow the tall commercial buildings and the big crowds of to-day.

The architectural changes have proceeded from a number of different sources, and are characterized severely by their origin. Thus in many cases the owners have merely knocked out the front of the buildings, perhaps taken down the stoop, and put in a couple of store-windows. It is this practice which has served most to prevent the appearance of the new Fifth Avenue from becoming generally interesting and effective, because these old buildings are only made more unsightly by their mutilation. On the other hand in certain instances the whole front has been ripped out, and only the old floor levels retained. Then a new front has been built, better adapted to the new uses of the building and more expressive thereof. These buildings, as we shall see, are often the most interesting on the avenue, and they are the only ones which embody a comparatively new and valuable architectural type. Finally many corners have been purchased by speculative builders, who have erected twelve-story buildings thereon of the usual type of commercial loft buildings.



THE GRANDE MAISON DE BLANC.
308 Fifth Avenue, New York.



BUILDING OF THEO. A. KOHN & SON.
321 Fifth Avenue, New York.

The enormous prices which these corners bring are necessitating an increasing number of these operations, but it is very much to be hoped that something will happen to arrest their increase. So far as their influence prevails, they rob the architectural appearance of Fifth Avenue of all character and interest and make it merely the duplicate of the old wholesale districts further south. Finally, in about ten or twelve instances, large plots, including corners, have been bought by the owners of retail stores or banks, which require a large amount of space. In these cases the character of the business was such that it demanded an architectural setting of more than usual dignity. In these cases handsome buildings, designed by architects in the best standing, have been erected, and these buildings, while they are not in any sense typical, afford the most interesting examples in the country of what may be called the "palatial" store.



THE BRUNSWICK BUILDING.

Fifth Avenue and 26th Street, New York. Francis H. Kimball, H. E. Donnell, } Associated Architects.

The first of these classes of buildings —viz., the mutilated brown-stone fronts —has, of course, no architectural interest, except as warnings. These old brown-stone buildings, which in their original state created an impression of dull but opulent respectability, have been converted by their mutiliation and by their newer neighbors into a condition of looking both cheap and rowdy, and fortunately they are by way of disappearing. They have usually remained in the hands of their original owners, who are holding them in the expectation of securing still better prices, and who in the mean time rent them for business purposes under comparatively short leases. These houses are gradually being picked off, either by speculative builders, or by business firms, seeking a



TIFFANY & CO.'S BUILDING.
Fifth Avenue and 37th Street, New York. McKim, Mead & White, Architects.

permanent location; and in this case a newer if not better building is usually substituted in their place.

Often this newer building merely amounts to a new façade, built as a screen in front of the old floor levels, and the façades erected under these circumstances have approached, as we have said, the dignity of a type. The characteristics of this type may be inferred by two examples shown in our illustrations—viz., that of the shops of Theodore A. Kohn & Son, at 321 Fifth Avenue, and the Grande Maison de Blanc, at 308 Fifth Avenue. The object of a business front on an avenue of this kind is,



THE BUILDING OF THE GORHAM MANUFACTURING COMPANY.
Fifth Avenue and 36th Street, New York. McKim, Mead & White, Architects.

of course, to afford a large amount of light, so that the floor space in the interior of the building, which is denied chance of displaying their names and even their wares to the crowds on the street below. The front, consequently,



LOOKING UP FIFTH AVENUE AT 43D STREET.

the advantage of side windows, will obtain as much illumination as possible. Furthermore, the large windows afford the occupants of these floors a better is designed simply as a frame for an array of window glass extending through three stories, and as such it is cheap to build, and strictly utilitarian in purpose,

while at the same time it may well be not unattractive in design. Perhaps the most interesting front of this class on the avenue is that at No. 321. In this case the marble frame work is strengthened in appearance by a considerable depth of wall, and is simplified by the absence above the second floor of any



THE NIGHT AND DAY BANK.
Fifth Avenue and 44th Street, New York.
Henry Ives Cobb, Architect.

divisions, except those made by the metallic balcony at the level of the fourth floor. This treatment has perhaps the disadvantage of trying to be in appearance something more than it really is; but the emphatic effect which the architect has obtained is refreshing, and the building has as well an air of smartness which is well adapted to the needs of a Fifth Avenue jeweler. Compared to it the façade of the Grande Maison de Blanc, while by no means bad, looks a little feeble and a little fussy, while it puts completely to shame the cheap-plaster monstrosity occupied by the International Sleeping Car Co. This last



BELL BUILDING.
Fifth Avenue and 32d Street, New York.
Maynicke & Franke, Architects.
Snelling & Potter, Consulting Architects.

building is, by the way, the most disreputable looking building on the avenue from the architectural point of view. It is an adaptation to Fifth Avenue of the methods of construction which obtain at World's fairs. Fortunately, however, it is one of the few reconstructed buildings on the avenue which

is not a credit to its type; and the length of the thoroughfare would possess on the whole a much better, as well as a more consistent, appearance than it does in case it were lined exclusively with structures like the Kohn Building and the Grande Maison de Blanc.

The illustrations show also two examples of the commercial loft buildings which have been, from the architectural point of view, the most unfortunate result of the increase in real estate values on the avenue. The first of these, the Brunswick Building, occupying the block front on the east side of the avenue between Twenty-sixth and Twenty-seventh Streets, is indeed planned to be used by wholesale houses as lofts, and it is, properly speaking, an extension of the influence of the wholesale part of Fifth Avenue south of Twenty-third Street to the other side of Madison Square. But whatever its economic significance it makes a sorry contribution to the better appearance of Fifth Avenue. It is cheap in appearance, and both commonplace and frivolous in design; and the worst of it is that an infinitely better looking building could be erected on the site without the expenditure of an additional dollar. The structure occupies one of the most conspicuous and finest sites in New York. There is no chance of its being superseded for fifty years; and during all that time it will stand as a monument of architectural vulgarity and turpitude, which has not the slightest justification in the underlying economic conditions. The building on the northwest corner of Thirty-second Street and Fifth Avenue is better, chiefly because it is less conspicuous. Being seen only from the other side of streets which are not very wide, its tiresome architectural detail does not count except from the upper floors of neighboring structures, while the use of cream-colored brick for the upper stories also tends to make the feeble incidents of the design disappear in its mass. It is a fair sample of the from eleven to fifteen-story commercial building with which the unholy enterprise of a few speculative builders are covering the newer business districts of New York. There are several other examples of them in the Fifth Avenue retail district, and they all possess architecturally the same characteristics. They are, indeed, the modern commercial analogues of the old brown-stone houses. They seek a certain kind of respectability, and obtain it by being hopelessly dull, and at times heavily ornamental. One would almost prefer the comparative excitement of a frank or foolish aberration to this monotonous repetition of a type which several years ago should have been literally bored to death by its own reiterated intrusion.

The buildings erected by rich retail firms for their own occupancy constitute the last and individually the most interesting examples of commercial architecture on the avenue. Indeed they constitute the new Fifth Avenue. It is these buildings which linger in the minds of visitors to New York, and constitute a sort of selected and glorified vision of the thoroughfare, as the most remarkable and interesting business street in this country. There is some truth in these lingering impressions; but it might be wished that there were more. The buildings of which we speak possess, indeed, an unusual distinction among American commercial buildings. There is nothing like them elsewhere in this country, and their parallels would be very rare in the largest European cities. They compare, indeed, with corresponding European buildings very much as the best modern American hotels and residences compare with the best modern European hotels and residences. They are sumptuous, showy and somewhat overwrought, but a genuine desire for architectural excellence has entered into their design and dignifies their pretensions.

The buildings belonging to this class which should not be overlooked, all of them stand in the ten blocks between Thirty-fourth and Forty-fourth Streets. They include the offices of the Knickerbocker Trust Co., the Altman store, the Gorham and Tiffany stores, Sherry's and the Night and Day Bank. Sherry's was erected over ten years ago; but the other five buildings have all been erected since 1903. Of this five the least interesting

is the Night and Day Bank on the south-east corner of Forty-fourth Street and Fifth Avenue. Compared to the commercial structures at Twenty-sixth or Thirty-second Street and Fifth Avenue this building is indeed a monument of architectural discretion and good taste. It is an excellent example of the severely simplified, frankly monotonous, and very economical type of business building, of which the office of D. H. Burnham has afforded so many examples; but the architect, Mr. Henry Ives Cobb, might, in this instance, without destroying its salutary utilitarian character, have added a certain amount of emphasis and distinction to the design. Its simplicity is somewhat sterile for a conspicuous building on a conspicuous corner of the most conspicuous avenue in the United States. As to the Altman Building ten blocks further south, whatever may be thought of the design, it certainly produces the effect and serves the purpose evidently desired by its owner. Abundance of window space is provided without any destruction of the strength of the piers; and the building has all the appearance of a fashionable store without any suggestion of mere ostentation. The great distinction of the building comes, however, from the stone of which it is built. This stone was imported from Paris, and is the well-known soft sandstone, to which so many Americans have been gratefully accustomed in that city. The mixture of softness and warmth in the color is inexpressibly refreshing after one's eyes have been tired by the ghastly cream-colored brick, so popular in New York, or even by the harshness of many native American stones; and it is very much to be hoped that the example set in the Altman Building by Messrs. Trowbridge and Livingston will be followed in many other instances.

The other four buildings, belonging to this class, which we have mentioned, were designed by Messrs. McKim, Mead & White. All of them have frequently been discussed in this and other architectural publications; and it is not necessary to revive these discussions in the present connection. One remark must, however, be made; and that is, out of these four and, indeed, out of all the business buildings erected by McKim, Mead & White in New York, the one which wears best is emphatically the Gorham Building. The façade of this building is a surprise and a joy whenever it looms up during the course of a walk down Fifth Avenue, and the more closely it is studied the more it shows the result of the careful elaboration of an initial idea, which was both happy and appropriate. It is the front-



THE BUILDING OF THE INTERNATIONAL SLEEPING CAR CO.
Fifth Avenue and 30th Street, New York.

age on Thirty-sixth Street rather than on Fifth Avenue which justifies the design of the façade, and it should consequently be remarked chiefly during a walk on the east side of the avenue, directed towards Thirty-fourth Street. Compared to the Gorham Building the Tiffany Building is by way of being frivolous and the Knickerbocker Trust Co. almost a mistake.

If the design of the building of the Knickerbocker Trust Co. is a mistake, the mistake is due to the fact that the

architect has sought to achieve the impossible. The object was to erect a low and effective building on a corner, which was sure to be surrounded by structures three times its height, and the scale of the colonnade was the outcome of the necessary emphasis which had to characterize the design of a four-story building under such surroundings. But no matter how colossal the scale of such a design, it cannot look well in immediate relation to two high blank walls. The building of the Knickerbocker Trust Co. is not rendered insignificant by its neighbors, the Aeolian and the Century, but the architectural effect of the whole group is so unhappy that one would prefer to see on the corner a much less distinguished building, whose cornice line was as high as that of its neighbors. The Trust Company has always threatened to turn the existing building into a fourteen-story structure, and regrettable as would be the alteration of the existing building, it would have many compensations. The intersection of Thirty-fourth Street and Fifth Avenue would certainly look better on the whole with a comparatively tall mass on every corner than it does now with two corners occupied by tall buildings. The Knoedler Building will come down in a year or two and the Altman store extended over the corner, and perhaps the President of the Knickerbocker Trust Co. will reach the conclusion that the architectural advantage of maintaining a low structure among such lofty neighbors is scarcely worth what it costs.

In any case, the architecturally incongruous appearance of the intersection of Fifth Avenue and Thirty-fourth Street is typical of the appearance of the whole thoroughfare. A better example could not be asked of the imposibility under the conditions of American urban building of obtaining any consistent excellence of effect in the architecture of a street. Here is an avenue which, for a mile and a quarter, is subject to the same commercial conditions and is used for practically the same purposes. The value of the real estate throughout this same distance has increased almost threefold in six years, and preserves, at the present time, an unusual conformity along the whole area. If the underlying business conditions could ever give a desirable unity of effect to a street they should have done so in this instance; but, of course, they have done nothing of the kind. The new Fifth Avenue is entirely without good street architecture, properly so-called. At no point on the avenue can one obtain a pleasant or a consistent general impression. There are some very beautiful individual buildings scattered along the avenue, and as we have seen, there has been developed a type of commercial building which is both strictly utilitarian and architecturally valid. But the individually effective buildings are so rare that one usually has to go out of one's way in order to find them, and the good type of reconstructed house-fronts is lost in a mass of brown-stone relics and twelve-story architectural nonentities. Moreover, this condition will hereafter, in all probability, grow worse rather than better. Ten years from now Fifth Avenue, as a whole, will be dominated by loft-buildings from eleven to fifteen stories in height, constructed mostly of cream-colored brick and in effect utterly lugubrious. But even the domination of the loft-building will not be sufficiently unqualified to give the street architecture any consistency. There will be so many reconstructed or un-reconstructed house-fronts scattered in between that the sky-line will be jagged and the effect uninteresting in its incoherence.

The truth is that the "sky-scraper" has its worst possible effect upon the architectural appearance of a long straight vista, such as that made by Fifth Avenue. When erected on an irregular plot, which is seen from many different angles, such as are the Flatiron and the Times Buildings, their effects are frequently picturesque and interesting. On the other hand, when they cover a whole district, as they do in the immediate vicinity of the New York Stock Exchange, they are also very effective in their mass, either as seen either from the street or from the Hudson River or from the Brooklyn Bridge. But when seen, as they are on Fifth Avenue, at oc-



1.—THE MORMON TEMPLE, SALT LAKE CITY.

casional intervals along a straight line, they are neither picturesque in outline nor massive and stupendous in effect. A person who is walking up and down the avenue merely observes the sky-line cut by an ugly slice of building, whose most conspicuous side is the bank sidewall of brick, which, from the point of view of its architectural design, was supposedly to be concealed. Buildings facing on a long avenue and seen down a straight line must, in order to look well, have a uniform cornice-line, and if there was ever in this country an instance in which the establishment by law of a restriction on the height of buildings was justified, that instance is Fifth Avenue in New York City. Fifth Avenue is, and is destined still more to be the most conspicuous, the most notorious street in any American city. It is the street whose business activity typifies precisely the manner in which New York is the American metropolis. The city government has every reason to pass regulations which would help this showy avenue to make an extremely good show; and the property-owners would have no right to complain about such a limitation of their privileges, because of the enormous benefit which they have reaped from the recent increase in values. The growth of New York has put so much money in their pockets that they could well afford to do something for the city. But the idea that a limitation on the height of buildings along Fifth Avenue was peculiarly appropriate has not even been suggested; and the city has so little will to impose its own needs upon the property-owners that it fails to take a necessary step, which it has every legal right and every business reason for taking. It fails to revoke the old stoop-licenses and stop the congestion of carriage traffic by widening the carriageway at the expense of the sidewalks. The new Fifth Avenue must remain a market-place for the rich without any appropriate architectural setting. Its architectural interest can only be occasional and incidental, and it even looks as if in the course of time the interesting architectural incidents would gradually become proportionately less numerous and conspicuous. *A. C. David.*

Building in Salt Lake City

There is nothing quite like the site of the City of the Saints, even in the wonderful country "Between the Mountains." No wonder the early Mormon pioneers found it Canaan, and the memories of their early scriptural reading before they took off to Joe Smith's "Revelation" of Spaulding's clumsy and elaborate Biblical parody came back to them. It is a land flowing with milk and honey, sure enough, the Utah valley. And the approach is calculated to enhance every charm it possesses. Imagine a six weeks' tramp in a "prairie schooner" over those desolate and arid lands which you now glide over in a day and in a Pullman, the dreariness and monotony of it all, to say nothing of the perils that confronted the pioneers, the peril of hunger, the peril of drought, the peril of hostile Indians. The trail from the Missouri to the mountains must have been whitened by bones long since become indistinguishable from those of the buffaloes, excepting to a comparative anatomist. And then the huge inhospitable mountains that form the gateway to the Promised Land, between whose awful forms the trail goes, the trail and now the rail, in what the descendants of the Dutch settlers of the Catskills spell a "clove," though the descendants of the Dutch settlers of Cape Colony still spell it a "Kloof." After all this, when you come upon the Happy Valley, no language can exaggerate its attractiveness. And, from the landscape artist's point of view, the site of Salt Lake City is the very pick of the fair and fertile valley. The lake itself, necessarily recalling the Dead Sea to Bible readers, makes no figure in the landscape of desert, being



2.—THE EAGLE GATE, ERECTED BY BRIGHAM YOUNG.



3.—THE DESERET NATIONAL BANK.
R. M. Upjohn, Architect.

indeed out of sight from the streets of the City of the Saints. The site of the city is an orchestra or Greek theatre, backed and framed by "the circle of the hills," with its floor gently sloping westward toward the Great Lake, and the solemn mountains forming a background whichever way you look except westward. I would not undertake to give dimensions, this description having the vagueness of a retrospect. But, generally, one may say that the slope from Fort Douglas, backed up against the eastern hills, to the railroad tracks westward of the town, is ample and no more than ample to "accommodate" a great city.



4.—THE DOOLEY BUILDING.
Louis H. Sullivan, Architect.

One could expect nothing of the architectural beginnings of a town founded as Salt Lake City was founded, by immigrants poor and ignorant and of various as well as vague architectural traditions. But the fact that the migration was organized and theocratic made a difference. Joe Smith had projected and partly built a temple at Nauvoo on the Mississippi, before the expulsion of his sect, which was solid and pretentious, and naturally it had no other interest. And, while the houses of the Mormon pioneers of Salt Lake were the cheapest and hastiest shelters that could be provided, early efforts were made to give to the communal buildings of the theocracy as much impressiveness as possible. This was all of material, not at all of design. It was rather a mistake to pretend, as I believe was if not is pretended, that the design of the temple was "revealed." Because unfortunately it was the same kind of design that would have been revealed at that time, that time being near the nadir of American architecture, to any untutored

country carpenter or stonemason in the United States, who had never seen a respectable piece of architecture. To any tutored eye, the pretence of revelation is a "give away." It had been better to give the designing to some eminent Gentile practitioner, even if he had executed it in a spirit of hilarity. As to the actual edifice, hear Rudyard Kipling. His account was written about 1889:

Some day the Temple will be finished. It was begun only thirty years ago, and has cost up to date rather more than three million dollars. The first thing to be seen was, of course, the Temple, the outward exponent of a creed. Armed with a copy of the Book of Mormon, for better comprehension, I went to form rash opinions. The walls are ten feet thick; the edifice will be about a hundred feet high, and its towers will be nearly two hundred. And that is all there is of it, unless you choose to inspect more closely, always reading the Book of Mormon as you walk. Then the wondrous puerility of what I suppose we must call the design becomes apparent. These men directly inspired from on high, heaped stone on stone and pillar on pillar, without achieving either dignity, relief or interest. There is, over the main door, some pitiful scratching stone representing the all-seeing Eye, the Masonic grip, the sun, moon and stars, and, perhaps, other skittles. The flatness and meanness of the thing almost makes you weep when you look at the magnificent granite in blocks strewn abroad, and think of the art that three million dollars might have called in to the aid of the church. It is as though a child had said: "Let us draw a great big fine house—finer than any house that ever was," and in that desire had laboriously smudged along with a ruler and pencil, piling meaningless straight lines on compass drawn curves, with his tongue following every movement of the inept hand. Then sat I down on a wheelbarrow and read the Book of Mormon, and behold the spirit of the book was the spirit of the stone before me.



5.—DESERET NEWS BUILDING, SHOWING PIONEER MONUMENT.
R. J. Kletting, Architect.

In truth, there have gone as few brains to the Temple as to any edifice extant. Even the rude religious beginnings of a savage tribe celebrating its gods give more "evidences of design," show more definite building purpose

than this preposterous erection, so much the more preposterous on account of the advanced stage of mechanical art that goes with the backwardness of its architecture, not backwardness, but mere emptiness.

The other architectural occupants of "Temple Square" are not so bad. For one thing, they could not be worse. For another thing, they do not show that waste which almost made Mr. Kipling weep, in making mere rubbish and nonsense of huge blocks of ever-during granite. For a third, they have practical ends to serve, and were planned and built accordingly. No edifice which is the most straightforward adaptation its builder could conceive of practical means to practical ends can be vulgar altogether. Now, the Temple doubtless serves practical ends, though what they are no Gentile is permitted to know and not all Mormons. But plainly they are not the basis of the "design," of the absurd child's play of the architecture. The huge, massive, everlasting ridiculous thing was conceived, saving the mark, as a "monument," its practical uses being not only incidents, but afterthoughts.



6.—McCORNICK BUILDING.
Mendelssohn & Fisher, Architects.

There is said to be a big hall or auditorium concealed somewhere about the premises, but the secret of its whereabouts is well kept. Nothing about the exterior tends to give it away. Tiers of single cells, an "office building," is what one would surmise from the outside. Now the Tabernacle is quite the opposite in the method of its construction. One need not go into it—I did not—to be assured that it is simply a huge audience room planned and built straightforwardly for the purpose of enabling as many



7.—THE HERALD BUILDING.

J. C. Craig, Architect.

persons as possible to hear and see. Here is a purpose to begin with, and for this relief much thanks. The great turtle back of the roof proclaims the purpose from afar. One may say that architecturally it is neither here nor there and not worth talking about. In sooth it is not. But how attractive the mere absence of pretension, the abdication of architecture, if you will, after the violent negation of architecture in its big neighbor. It is in the same class with the big Auditorium at Ocean Grove, and with many another like structure, which nobody would think of criticising architecturally, and about which the only question is whether they do fulfil their practical purposes. I am told that the Tabernacle fulfils its particular purpose very well. It is without offence.

The third of the edifices in the enclosure is not so good as the second and could not be as bad as the first. The Assembly Hall, I think the Mormons call it, though it looks more like an administrative building. It was built, one imagines, in the late sixties or the early seventies, when the fashion was for the Victorian Gothic of which it is a deeply misunderstood example, and is the kind of thing with which the untutored "architect" was in those days defiling the face of Nature withal from the Atlantic to the Mississippi. Outside the sacred enclosure are the other two Mormon monuments, the "Eagle Gate," which gives access (does it not?) to the populous village which formerly held in humble one-story cottages the family, literal "propaganda" of the much propagating prophet. It is not much worth looking at or talking about. Here also one recalls various monuments in older settlements, entrances to cemeteries and such like, which are no better and not very widely different. And then there is the considerably later "Monument to Brigham Young and the Pioneers," who surely deserved a monument for their courage in sallying out across the unknown and



8.—PRESBYTERIAN CHURCH.
Ware & Treganza, Architects.

desolate plains infested with hostile savages, whatever they went out into the wilderness to see or found. And the monument itself shows a considerable advance upon its predecessors, being, in point of fact, both as to its architecture and its sculpture, the kind of monument which, if dedicated to the "Soldiers and Sailors" instead of to the Pioneers, and planted in a town eastward of the Mississippi, instead of one a good thousand miles to the westward of it, would at any time during the eighth or ninth decades of the nineteenth century have been pointed to with pride by the local cicerone, and recognized by his pilgrim client as a negotiable expression of the prevailing fashion.

These are the only monuments of the "style officiel" of Mormondom. It will be seen that they are of the average quality of the monuments of what may fairly be called the official American style of their respective periods outside of Mormondom. If the Temple seems below the average, that is mainly because of the great cost and monumental material that have been so pitiably wasted in carrying out a conception which is no worse than the contemporary conception of the average American country carpenter. On the other hand the straightforwardness and simplicity of the Tabernacle raise it distinctly above the common standard throughout the United States at large, of edifices of its class, and suggest that some educated architect was in the planning of it imposing upon himself a great renunciation. The other things have their counterparts elsewhere. It were to hold the Mormons to too strict an accountability to blame them for not transcending the common standard, which is no standard.



9.—FIRST CHURCH OF CHRIST SCIENTIST.
Ware & Treganza, Architects.

In a way we have some reason for the expectation. You would not expect much, in the way of fine art, from a people reared as you know the mass of the original or pioneer Mormons to have been, still less of the people whose literary standard is Spaulding's not very skilful hoax in the way of a parody of the Bible, and whose architectural standard may be supposed to be represented by that awful and ridiculous "Temple." But they are an artistic people, all the same. Distinctly more so, one has the right to say, than their Gentile neighbors, sprung from the same plane of culture. There are more and better Mormon sculptors, painters, musicians, than there are proportionately in the surrounding Gentile tribes. With this direction toward art, for which it is not my business to account, and with the resources of the hierarchy and the solidarity of the church, it would have looked reasonable that they should have produced some beginning of a distinctive tendency in the eminently communal and social art of architecture. But, unless the Tabernacle, about the designing of which I know nothing, be such a beginning, no such beginning is to be found. The simple and straightforward adaptation of means to ends in that structure, the unobstructed spaces, the successful attention to acoustics, the number and amplitude of the exits and the entrances, the effective arrangement of the supports, and in a word the entire abnegation of the conventional notion of "architecture" indicate some tincture of the real thing. One ought, however, to credit the Mormon instigators with good building, even though the builders were not themselves Mormons. As students know, toward the end of the sixties not only



10.—PACKARD LIBRARY. Heins & LaFarge, Architects.

were the commercial streets of all our cities defiled by buildings of cast iron in absurd imitation of masonry, but sundry thoughtful designers were misled into trying to treat cast iron as a building material, ignoring that exposed cast iron was not available for more monumental uses than the framework of a greenhouse. A monumental greenhouse is the best you can say for Sir Joseph Paxton's achievement, or for the advance upon it shown by the designers of the New York Crystal Palace a year or two later, long since destroyed. Nevertheless, really competent designers were working at the iron front problem from 1865 to 1875 and the Mormon hierarchs had the luck and the judgment to fall in with one of them, and to incite him to do his best. What is now the Deseret National Bank was the scene of the undertaking, and the late Richard M. Upjohn was the architect the hierarchs were beneficently inspired to employ. The Mormon Bank was at least a semi-official building. The business aspect of Mormonism has never for a moment been suffered to lapse into invisibility. The hierarchy is entitled to its share of the credit for what all students will agree was one of the most interesting solutions of the problem of the iron front. To look at is to see that the designer must have trusted to a great degree for its effect upon the application of color, as all the competent designers in that kind did. You will observe that paint might have done much, by emphasizing the dependent tracery, to soften even while emphasizing the stark uprights and transoms of the essential construction. One would like to see it, even now, treated by a painter who knows what he is about, or painted under the



11.— RESIDENCE.

Ware & Treganza, Architects.

direction of some one who does. Very likely that result was attained at first. But of course the front has in the interval been treated to many "coats" of many colors, and at present it is of a uniform dingy, gamboge, which does not give the design half a chance. And yet, for its date and for its material, the photograph shows it to have been an apparently promising and a distinctly exemplary instance of the then "new departure."



12.—RESIDENCE.
Fred. Hale and Thos. Green, Associate Architects.

But these things, like the one-story cottages and the one-story stores, are relics, and there is a sharp line of cleavage between them and the earliest of what may be called the modern buildings. The Utah notion of antiquity is as comic to the Easterner as the Easterner's notion to the European. At one of the stations between Ogden and Salt Lake there is a country store which proudly brandishes on its front the sign, "Founded 1838," proclaiming a duration which goes back to "the twilight of fable." The earliest of the modern office buildings in Salt Lake, I suppose, is the Dooley, which may date back nearly 20 years, and which has an interest of its own as being the work of Mr. Louis H. Sullivan, and quite recognizable to those who know his other Southwestern work, the station of the Illinois Central at New Orleans, the opera house at Pueblo, Col. Like those, this recalls the Spanish mode, if only by the unbrageous projection of the roofs, which was one of the chief features in that questionable, or at least much questioned, edifice, the Transportation Building at the Columbian Fair. It is also shared by a hotel in Chicago, the "Victoria." It is required, of course, for the protection of walls of adobe or of "staff," and loses some of its signifi-

cance when superposed upon and overshadowing walls of actual masonry, as in the present instance. For the rest this is a sober and discreet performance, very exemplary in a place where monotony is by no means the besetting sin of the local designer, without a single ornament, unless the slight moulding of the jambs of the principal piers be accounted such. It asserts itself as unmistakably the work of an architectural artist, by the fenestration, the disposition in tiers of stories, the projection of the piers, sufficient though slight, the punctuation given to the crowning member by the triplets over the large arches and the projection of the roof beams. The author would hardly do it now, I suppose, with the new lights he has since seen, and the courage to which they have emboldened him. But Salt Lake has reason to be grateful that he did it then.

One is always glad in this Western country, where the trail of the Spaniard is over it all, to come upon traces of the Spaniard's architecture. Utah is by no means sub-tropical, nor is protection from the heat and glare a primary requirement in building. The umbrageous projection of the roof of the Dooley



13—RESIDENCE.

Ware & Treganza, Architects.

building is, however, its only recall of the building of the pioneers. But the style, the style of the Missions, is carried out much further and much more literally, in the old State Fair Building at Salt Lake City, an appropriate design for a building of which the architecture proclaims the occasional and festal purpose, and in which the quaint style is seen at its best. All its badges are here, the umbrageous roof, the low belfries

superposed upon their stark towers and framing curvilinear gables, the terminal pavilions with their plain walls and their spreading roofs. All are admirably adapted and put together, and the slight decorative detail, slight in quantity, is as well placed and scaled as designed. Nobody could mistake the work as that of any but a trained and a sensitive designer. Quite apart from the historical ing is exemplary in quite the same way as the Dooley Building.

The commercial lions of Salt Lake, the modern office buildings, show that the lesson of quietude has not been thrown away. The building of the Deseret News, the Mormon newspaper organ, and the McCornick, are these lions, the latter, I suppose, the latest and certainly the loudest. I suppose the latest,



14.—RESIDENCE.

Ware & Treganza, Architects.

or the climatic appropriateness of the style as a point of departure, it has two qualities that are good always and good everywhere, and that may well commend it to American designers. Breadth and simplicity are these excellent qualities. And breadth and simplicity are two of the qualities of which our architecture stands most conspicuously in need, two of its main defects being fussiness and "thinginess." So the State Fair Build- since it is a story higher ("seven in all, she said"), than the modest six of the Dooley and the Deseret. All three are large drafts upon the future, in a town of which, as their neighbors show, two stories is the normal limit for present commercial purposes. But there is nothing offensive about either, and extravagant expectation in our West is very apt to lose its extravagance by being caught up with and ceasing to be extravagant

within the space occupied in the erection of a skyscraper. It would even be unjust to damn them with the faint and negative praise of inoffensiveness. The Deseret News building is a straightforward and sober-sided performance which John Root might have acknowledged without shame, though he would have tried to break out somewhere into a mild efflorescence. The McCornick, in spite anywhere. When Salt Lake grows up to them, and there comes an effective demand for the reconstruction of the entire business quarter on the like lines, there will be little or nothing to unlearn of what these three edifices have inculcated. The later Herald Building is not so exemplary. It is exemplary, indeed, in confining itself to a modest altitude of five stories, which is all that seems



15.—RESIDENCE.

S. C. Dallas, Architect.

of its greater ambitiousness, indicated by the quoining, by the attempt, hard to justify in a steel frame building, of a triple division of each front, and by the entirely irrelevant and dispensable "order" at the base of the centre of the narrower, where the arch which makes the centre of the wider would be so much more to the purpose, the McCornick would be a respectable and practical specimen of elevator architecture warranted by the present or the visibly future requirements of the town, and in the general sobriety of the detail. But one does not quite see the use, in the actual conditions of the place, of a court reduced to a "slot" which by no means provides a satisfactory illumination for premises otherwise unlighted. And certainly one does not see the use of the exuberant and riotous display in which the building breaks out at the top, which

irresistibly suggests the cheap pretense of sheet metal, and forms so unpleasant an exception to the rule of sobriety observed in the detail of the structure.

Gentile churches are not what the tourist, expects to see much of in Salt Lake City. But Salt Lake has them of the leading denominations, though the church buildings are quite unmemorable with one memorable exception. This is the Presbyterian Church, finished in 1905, which is a great refreshment for the tourist. It suffers, when one looks at it as a specific expression of Presbyterianism, as almost all Presbyterian churches do, from the lack of an architectural tradition. But how can the lineal descendant of the Puritanical iconoclasm of the seventeenth century, which is traced over England by its ravages, but never by its works, have an architectural tradition? It came not to build up but to destroy. Perhaps its true type is the American "meeting house" of New England, which was a degeneration from the works of Wren and his successors. Architects there are who, from that unpromising point of departure, have made unmistakably Presbyterian churches which are also worth looking at. But the easier and more tempting way is frankly to disregard your Presbyterianism as inexpressible, and revert to the Anglican type. This the designer of the present edifice has done with such completeness that the uninformed beholder would take his work for a Protestant Episcopal Church. But also he has done it with a skill and success and to a picturesque effect, which must reconcile the cultivated parishioner, and which certainly produces



16.—RESIDENCE.

Ware & Treganza, Architects.

a very agreeable effect upon the cultivated stranger, as of an English parish church built some five thousand miles out of due place. It inculcates a needful and useful lesson of "quietness and confidence," which, as in the examples of the mission architecture, are qualities of which American architecture in general and possibly Western architecture in particular are in special need. But the ripeness and mellowness of effect that belong to this edifice are artistic and personal qualities, not communicable to an imitator except through the "strong propensity of nature" joined to a thorough professional training. It ought to be added that the church is much better than the drawing represents it to be, and I wish I had a photograph of the actual church to show you instead of the drawing. Though even that would fail to render the particular lucky tint of the stone, it would do more justice than is done by the drawing to the detail, which is in fact very successfully studied and adjusted in scale but which a perspective made in advance of execution leaves vague and sketchy. Another church, by the same architects, the "First Church of Christ, Scientist," is by no means so successful. It loses the security which is obtained by an adherence to "style" and seems to suffer from the uncertainty of the architects as to what sort of edifice a "Church of Christ, Scientist," may be or ought to be. Small blame to them on that account from the present writer. But as in the famous language of the Texan legislator, "it is difficult for a man to give expression to an idea of which he is not possessed of," it could not be expected that groping for



17.—RESIDENCE.

C. M. Neuhausen, Architect.



19.—NEW STATE FAIR BUILDING JUST BEING COMPLETED.
Ware & Treganza, Architects.



20.—STATE FAIR BUILDING. Ware & Treganza, Architects.



21.—ROOF GARDEN OF THE UNIVERSITY CLUB. Ware & Treganza, Architects.



18.—EMERY HOLMES APARTMENT HOUSE. J. C. Craig, Architect.

a type would be so successful as the adoption of a type perfectly understood and perfectly recognizable. This might be, from the exterior, a library or a school house quite as easily as what it is, whatever that may be, though it does not resemble that other abode of strange faiths, the Mormon Temple, in having no visible basis of design, the physical requirements of the case here supplying that basis, and the design being carried out in a trained and workmanlike manner.



22.—RECEPTION HALL, UNIVERSITY CLUB.
Ware & Treganza, Architects.

Of "Institutional" building, apart from the building of the peculiar institution, Salt Lake has not very much to show. The library, built by "Eastern" architects, seems to have been designed as a "kind of general expression," as Dickens' Mrs. Plornish said about the "Altro" of her Italian lodger. Which is to say that it seems quite to waive any attempt at "local color" or specific appropriateness, and bears no evidence that the designer had ever visited the scene of his exploit that was to be. It is quite true that if he had done so, he would still have had his own difficulties and "déroutements" in the way of groping for a type, a type of architecture suitable for a public library in Salt Lake City. But it looks, the library does, as if, in the absence of such indications as a study of the scene would have furnished him withal, he had taken the safe course of aiming "to hit it if it were a deer and miss it if it were a calf." In fact he produced an emphatic exterior, emphatic in scale to the point perhaps of inflation, which should not be likely to be "shamed" or shaded by whatever extravagance might "leap to light" on the adjoining block or the adjoining lot, and which should be able to hold its own in the face of all possible neighbors. That is at least the most obvious explanation of the library. One perceives, or thinks he does, that his edifice would have gained and that the architecture of Salt Lake might also

have gained if the terms of his appointment had permitted him to visit the scene and consider the local conditions. And yet one must admit that, from his own distant point of view, his proceedings may be vindicated by the result, since his building seems in no danger of being overslaughed by any later comers. And, of course, if there be no very noticeable help towards the solution of the specific local problem in the library, there is a certain satisfying assurance of general competency and knowingness.

But, as is the case throughout the West, and indeed throughout the country, it is the domestic building of Salt Lake which is most attractive and most interesting. And here also, as in general, it is true that the lions of the community, the "show places" to which the resident points the stranger with pride, commonly accompanied with an estimate of the cost of the show place, are not the houses in which the visitor who is a special student of the subject takes the greatest interest. The "hundred thousand dollar house" is apt to leave him cold, while he warms in the presence of a modest cottage which may have cost a tithe of that amount and upon which the chief expenditure has been that of thought. Such a visitor could not, for example, be reasonably expected to warm to anywhere near the point of ebullition at the sight of the "palatial residence" in hewn stone, the "four gray walls and four gray towers," towers roofed with tiles, while the pyramid of roof between them is covered with slate, with the classic portico and the Italian loggia and the nondescript dormer above on the flank, and the classic portico and the doubled dormer on the front. This edifice, the like of which, it is quite true, you may have pointed out to you in any city the size of Salt Lake in the East or the Middle West, leaves you cold, unless, by reason of your own temperament, it happens to leave you hot. The architect has evidently put into it all he knows, and he has not known to leave out half the things, and to subdue the rest to the purpose of an architectural composition.



23.—INTERIOR, UNIVERSITY CLUB.

Ware & Treganza, Architects.

There are much too many "features" to make a countenance. There is, in truth, a "thinginess" betokening a Teutonic origin, for is it not that that famous philoteuton, Carlyle, who has laid it down as the defect of the German intellect that it cannot eliminate the unessential, whereas in architecture the elimination of the unessential is the beginning of wisdom? Yet, quite possibly, this "fortuitous concourse" of irreconcilabilities is the costliest residence in Salt Lake.

Neither can one incandesce at the sight of any wall of the three "Colonial mansions," which are equally among the show houses of Salt Lake. It is a matter of sensibility. Why, for example, should the English parish church six thousand miles from home that we have just been praising come home to the wayfarer in Salt Lake

> With a Sabbath sound, as of doves
> In quiet neighborhoods,

and these three transplantations from the New England only half as far away strike him with a sense of violent transplantation and incongruity? Let the wayfarer whom they do respectively thus affect simply record the fact, and leave the explanation to professors of psychology. Also let the wayfarer record that on the Atlantic slope these reproductions which strike him so queerly in Utah would be quite fairly eligible as modern reproductions of "Old Colonial" with much greater affluence of means than the builders of that reproduction of the British Georgian were able to bring to their work. He cannot, in any of these cases, as in the preceding case, complain that the house is over-featured. For in each the portico is really the, and the only, feature. He may perhaps be entitled to complain in the case of No. 11 that the principal and only decoration of a mansion in rough and enduring masonry should be in smooth and perishable carpentry. And also one may perhaps justly complain that when an architect sacrifices to the Graces with a portico which is of no use, since the darkening of the windows is by no means compensated by the shading of the verandah, the sacrifice ought to be complete. The introduction of a gallery midway of the order, and cutting it to the eye, in two, always entails an awkwardness. Both these criticisms are obviated in No. 12, in which the material of house and portico is homogeneous, in which the austere Roman Doric of the order is entirely congruous with the building it decorates, and in which the rather difficult success is attained of designing an attic which is, although bearing a visible roof, quite in keeping. It is true that the same praise of congruity cannot be given to the balustraded porch at the side, which pretty plainly ought either to be different or not to be at all. And No. 13 would in a "Colonial" region be accepted as a very eligible Colonial mansion.

But distinctly more to the purpose is the next house on our list, No. 14, of which the prototype is the Italian villa, a harmonious, well balanced and well proportioned composition, in which the "features" of the loggia in front and the conservatory on the side suffice to animate the building without disturbing it, and in which the same purpose is attained by the combination of material, the stuccoed walls with their arching and quoining in brickwork. Though technically of quite a different origin and inspiration than the Mission architecture derived from Spain, this has the same excellent qualities of breadth and simplicity and repose. It is in rather striking contrast with the next, No. 15, the gabled fronts hung with tiles, and united and reconciled by the turret at the angle with the spreading circular verandah-roof at its base. I seem to recall the immediate prototype in an admirable house on Riverside Drive in New York, with which, at any rate, this has much in common. Not repose, though it is by no means restless, but a vigorous and spirited picturesqueness is the purpose here of the architect and his attainment. And it is soothing to the patriotic mind to consider that here is a piece of architecture which is both unmistakably artistic and unmistakably American. May its tribe increase, as in urban and suburban and rural houses it is unquestionably increasing. It remains to be added that this example of Ameri-

canism gains immensely from the skill with which its composition is adapted to the site, a knoll following and concentrically enclosing the sweep of the circular verandah.

Of the houses of less pretension, of no pretension in fact but that of outwardly expressing the fact that they are comfortable homes adapted to the needs of their occupants, I am sorry that I have but one example to show, No. 16, although the City of the Saints abounds in examples. Such an example of no historical style at all, but example of the habitation to which the merely well-to-do American attains, and to which every American may fairly aspire, is the more valuable, as No. 17 is the more valuable for not being exceptional but typical, and for having its like in every city and almost every village from ocean to ocean. As an architectural "symptom" it has nothing discouraging. As a social symptom it abounds in national encouragement.

Some of these Salt Lake houses come near that goal of the modern and especially of the American architect, the production of a building which, being of no "style," yet has style. But it is perhaps oftener in interiors than in exteriors that the goal is attained. The imported decorator, the worker in historical styles, to whom art means archaeology, would be apt to disparage such efforts by saying that they are of no style. And yet, unless his native sensibility had been entirely sophisticated out of him by his training and his practice, he could not deny that they have style. The idiomatic and vernacular character of the "nook" in particular must impress the beholder. It is simply a straightforward treatment of the material at hand for the purpose in view, and the sparing decoration seems to grow quite naturally out of the conditions, as naturally as the decoration, say, of a Polynesian paddle. This is "originality" in the best sense, the sense not of novelty but of sincerity. It has no reminiscences of historical styles, though one can say with considerable confidence that it could not have been done without study of historical styles and the sensibility that comes of that study. These characters of straightforwardness, of simplicity are in evidence in the interiors of the University Club to the same result of vernacularity. It is such things as these, more frequent in the West than in the East, that give our best hope for the future of American architecture, such things much more than the "examples" and the reproductions. It is gratifying to see that the City of the Latter Day Saints has its share of them.

Franz K. Winkler.



SECOND YEAR WORK—DRAWING FROM THE ANTIQUE.

The College of Architecture

Cornell University

"I will lift up mine eyes unto the hills;" the words of the Psalmist sing themselves in the mind of the beholder who gazes from almost any point on the campus of Cornell University over the panorama spread before him. Below in the lap of the valley nestles the little city of Ithaca—an aspiring little city, too; for as the university has grown, gradually extending itself more and more widely over the broad acres that constitute its campus, the town has crept steadily up toward it, until now no inconsiderable portion of it lies on East Hill at the very gates of the university. The main town, however, still lies in the valley, which stretches quietly away beyond it toward the southwest to be lost at last in the blue distance where South Hill, closing it in in that direction, converges upon the long hill to the west. Across the valley and squarely facing East Hill with its crown of university buildings, rises the massive bulk of this western hill, extending the whole length of the valley, its long, almost unbroken ridge silhouetted against an infinitely variable sky. Thus snugly enclosed on three sides by the protecting highlands, the little valley slopes ever so gently toward the north until it drops away beneath the waters of Cayuga Lake, which stretches through many miles of its long river-like expanse before it turns and sinks out of sight at last behind the dwindling spur of West Hill.

One cannot help wondering whether some Wordsworthian notion of the educative power of beautiful natural surroundings influenced the mind of the founder in selecting this site for his great university; whether he, too, understood the subtle power of that "unconscious intercourse with beauty old as creation" in shaping the developing soul. It would be difficult indeed to find a spot better fitted for opening the heart of youth to that sense of beauty without which true culture is impossible; and doubly fortunate is it that here in such surroundings should have arisen one of the comparatively few architectural schools of the country. For the architect no less than for painter, poet, or sculptor, an unerring instinct for beauty is an indispensable requisite; and what influence more potent for awakening this instinct if dormant, or for sustaining and developing it if already active, than the intimate contact and communion with nature possible—nay, almost inevitable—at Cornell? One lifts tired eyes from book or drafting board and they rest almost of necessity upon the eternal quiet of the distant hills, now lying in full sunlight, every detail distinct, or again dimly seen through the veiling mists of an approaching storm; now mottled with the shadows of flying clouds; now bathed in the unspeakable glory of the setting sun, a short lived splendor of crimson and gold; now sinking into the purple indistinctness of approaching night.

Has the student "gone stale," to use his own expressive term? Has he worked over some baffling problem in design until all labor is bootless? The possibility of physical and spiritual recuperation lies close at hand. Hardly a stone's throw from the doors of White Hall, the home of the architectural school, runs the deep gorge of Fall Creek, a narrow canyon sinking sheer through the shale rock to a depth of here fifty, there a hundred, there two hundred feet, musical in summer with the murmur of its much diminished stream, reverberating in flood time to the roar of sounding cataracts. A short walk up the squirrel haunted woodland path bordering the gorge brings one in sight of the picturesque Triphammer Fall backed by the great dam, behind whose barrier the creek widens into Beebe Lake, in summer a mirror reflecting the tranquil beauty of its own wooded shores, in winter a sheet of polished ice hissing under flying

steel-shod feet or under the mighty rush of the toboggans with their noisy crews, which the great double toboggan slide is constantly disgorging upon it. Down stream a little way one passes the charming cascade known as Horseshoe Falls, and again a little way and he comes upon Ithaca Fall, its tumbling waters tearing themsleves to foam on the broken face of the rocky wall as they drop into the deep pool a hundred and sixty feet below.

Perhaps half a mile away across the campus, and forming its southern boundary, as Fall Creek does its northern, runs Cascadilla Gorge, as beautiful as its name. Less wild and rugged than Fall Creek, it boasts no roaring cataracts but breaks into innumerable little cascades, not less beautiful and perhaps more musical. Here vegetation has found more frequent foothold and the bareness of grey wall has given place at many points to the exquisite greens of soft mosses, feathery ferns, or low-growing bushes, alternating with the darker masses of sturdy evergreen trees.

Or if hill and vale, woodland path and rocky canyon fail to charm, there is always the lure of the lake. Swimming, rowing, sailing, canoeing, all are possible to perfection and bring the necessary relaxation. Or, if the mood serve, better still is it to wander idly along the shore, eyes and mind open to every impression. He must be a dullard indeed in whom, under such circumstances, no color sense is born. Color lies all about him, changing with infinite variation from the cold blues and browns and purples of dull winter days through the tender greens and pinks of early spring to the flaming crimson and orange of October sunsets.



A GLIMPSE OF GORGE, VALLEY AND LAKE.
Ithaca, N. Y.

Only the man who is esthetically totally depraved could fail utterly to respond to the influences surrounding him in the college of architecture at Cornell. Occasionally, to be sure, such an unregenerate one sets foot within her walls; but he soon finds that he does not breathe easily the atmosphere of the college. Beauty-blind himself, he cannot share the enthusiasm of his comrades for the

great monuments of the past, their joy in the creations of the great moderns, their dreams of a still greater future for their chosen art. If he be honest and serious he soon discovers for himself or is gently but firmly advised that he can find work better suited to his capacities in some other college of the university. For the born idler and scoffer there is reserved the "outer darkness." And thus in the student body as a whole, pursuing sanely and healthfully amid beautiful natural surroundings the study of past achievement, there is preserved the spirit of serious striving for the best in art and in humanity.



THE SOPHOMORE-FRESHMAN CONTEST TO CAPTURE VICTIMS FOR THE GROTESQUE "PEERADE" PRIOR TO THE FRESHMAN BANQUET IS NOW AN INSTITUTION AS REVERED AS FOOTBALL, BUT WITH MORE FUN AND LESS DANGER.

During the past year there has appeared in various magazines some little discussion of a subject by no means new—namely, the relative advantages and disadvantages of the great university as compared with the small college. Both have their enthusiastic champions, the upholders of the great institutions declaring that the cosmopolitanism of the big universities tends more surely to produce men of broad culture with a wide grasp of affairs and a clear understanding of world conditions; their opponents urging no less positively that only the close personal contact between teacher and student possible in the small college can furnish the vitalizing element necessary to transmute knowledge into culture. For the student in the college of architecture at Cornell University the question is of no moment. He is at once a member of the great university and of the small college, and may, if he have the will and the insight, reap the benefits accruing from both systems.

Within the college the relation between teacher and student is such as to give the greatest opportunity for the play of personality. As every one at all conversant with the nature of architectural study knows, the major portion of the work is of necessity accomplished by means of individual as opposed to class

instruction. In Cornell such individual instruction is given wherever possible. The teacher is no formal lecturer, appearing at a stated moment, dealing out information *en bloc* for an hour, and then disappearing from the student's ken until his hour strikes again. He spends hours each day in the drafting rooms, watching the progress of the work, praising here, condemning there, explaining the principles involved in his criticisms, setting ideals before the students, stirring their imaginations, inspiring them to more earnest work. Nor a whole the architectural students enter with an enthusiasm that makes their presence distinctly felt. Although the college is one of the smaller ones of the university, its students constituting only about a fortieth of the whole, and although the requirements of the course are severely exacting, there is hardly a line of general student activity in which they are not ably and more or less numerously represented. For the intercollegiate athletic contests as well as for the university athletic organizations the college regularly furnishes its quota.



COLLEGE OF ARCHITECTURE, CORNELL UNIVERSITY.
The great drafting room where all classes work together in architectural design.

does this intimate relation of teacher to student close with the day's work. He is not work-fellow merely; he is play-fellow, too, and that without loss of dignity on his part or of respect on the part of the student. In all college festivities he has an important share. A college picnic or a college banquet without the faculty? The students would never countenance the suggestion, the faculty would wonder at it, for both prize equally the fine spirit of good comradeship, of hearty co-operation, that characterizes all their relations.

Into the wider life of the university as Much more prominent is it in other directions. In the musical and dramatic clubs its representation is almost invariably large in proportion to its size; while the student publications of various sorts depend for much of their artistic matter upon the contributions of the "architects." During the year just closing, for example, the college has furnished the leader of the glee club, who is also university cheer leader; the manager of the football team; the artistic editor of the Cornellian, the Junior class annual; and the acknowledged "star" of the Masque, the university dramatic club;

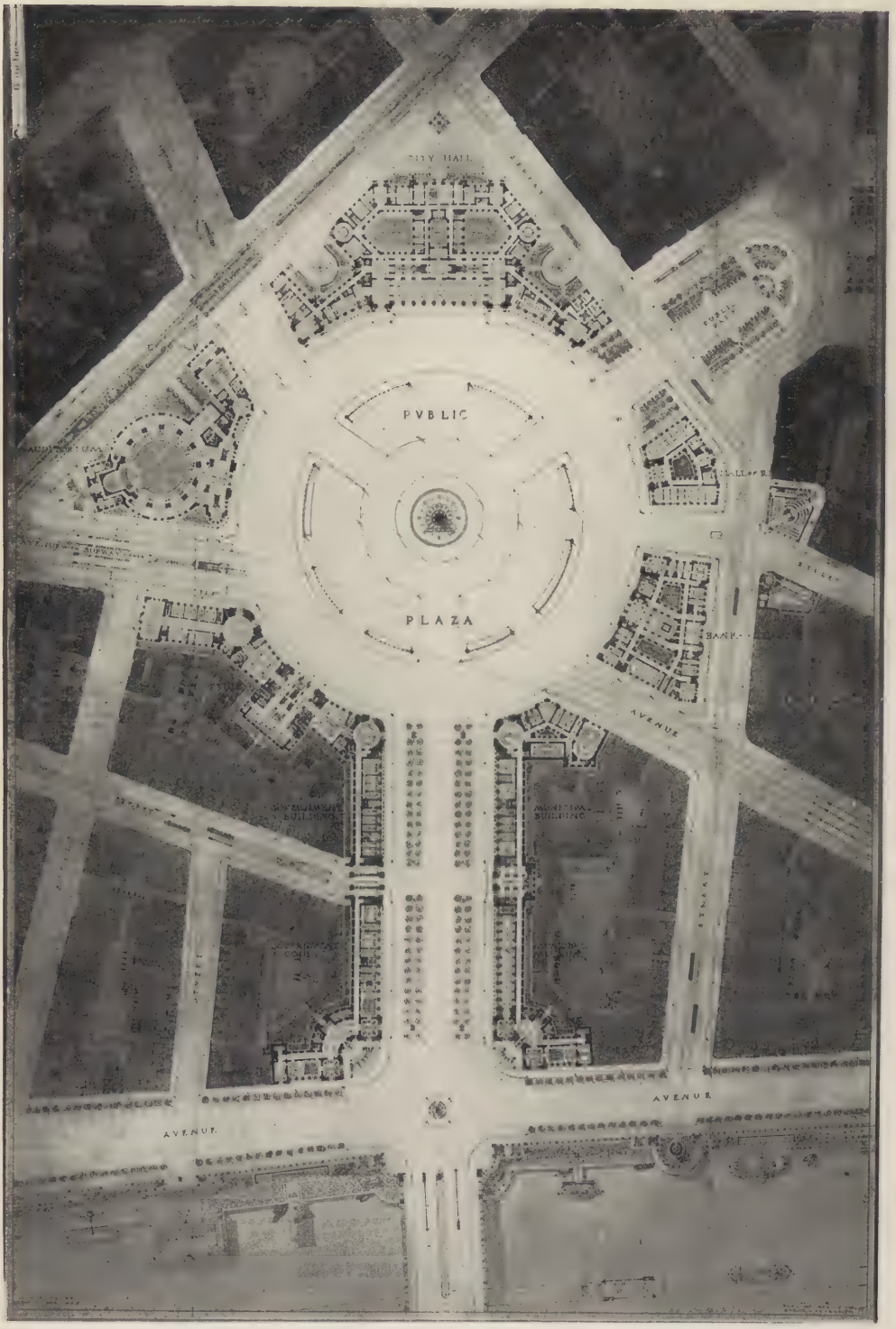
besides other less prominent representatives of the various student associations and activities.

The architects may be depended upon, too, to furnish at least their full share of any fun afoot in the university. It is indeed becoming a tradition at Cornell that most of the "stunts" on the campus originate in the college of architecture, "stunt" being the regular and only allowable Cornell equivalent for any clever, mirth-provoknig trick or exhibition. It was they who, when the Chinese imperial educational commission was visiting the university and being politely and somewhat elaborately entertained, added a certain piquancy to the entertainment by displaying on the front of their building a huge white banner with a fiercely realistic yellow dragon rampant. It is the architects who on St. Patrick's Day, choosing their colors with charming impartiality, always decorate their building with great streamers of orange and green with a banner over the main entrance bearing a green shamrock on an orange ground. Not even this year, when St. Patrick's Day fell on a Sunday, was the custom allowed to lapse. And it is to the architects, perhaps, more than to the students of any other college, that the university public looks on Spring Day for clever and original devices for wheedling money out of it for the benefit of athletics.

Doubtless some of this inventiveness is due to the conditions under which the work of the college is carried on. The students spend a large portion of their working day in great open drafting rooms where they are allowed almost unlimited personal liberty. Upon the freshmen, to be sure, certain restraints are imposed, partly by rule of the faculty, but in much larger measure by the traditions of the college. The faculty prescribes, for example, certain definite hours of drafting room work for the freshmen; but college tradition, basing its prescription perhaps on the adage that children should be seen and not heard, requires in addition that they shall preserve a demeanor of quiet decorum in the performance of it. There must be nothing of what is technically known as "rough-housing" in the freshman drafting rooms. They are also denied the privilege of wearing any distinctive dress. The sophomores may wear white duck coats and the upper classmen loose linen or denim smocks,



COLLEGE OF ARCHITECTURE, CORNELL UNIVERSITY.
The Freehand Drawing Department. This view shows only about one-fourth of the room.



FOURTH YEAR DESIGN—A CIVIC CENTER, PLAN.

the color of collar and other trimmings indicating necessary distinctions; but for the freshmen only ordinary street dress *en régle*. Once out of the freshman limbo, the students find practically all external restraints upon their conduct in the drafting rooms withdrawn; yet they almost never abuse their liberty. They talk; they laugh; they sing over their drafting boards; they criticize each other's work with a frankness that leaves little to be desired; they chaff each other also, it must be admitted, by a general misconception of the real requirements of the profession; by a failure to grasp the fact that architecture is primarily a fine art—the greatest of the fine arts—not a phase of engineering; that its problems are primarily esthetic problems, not problems of engineering, however important the latter may be. The result of this misconception was to give to the students brought up under the old régime at least an inadequate if not an actually false and



FOURTH YEAR DESIGN—A CIVIC CENTER.—BIRD'S-EYE VIEW.

mercilessly, sparing no one's foibles; yet all the while the work goes steadily, if merrily, on, all the more steadily, doubtless, because so merrily.

And now what is the character of this work? What is it that the college attempts to give to its students? Cornell, in common with other educational institutions in this country, first established her course in architecture as an adjunct to already existing courses in engineering. Here, as elsewhere, this action was dictated partly by expediency, but partly misleading preparation for success in the field of practice. The profession was demanding architects, and the American schools were sending out engineers, most of them to be relegated permanently to positions as salaried draftsmen, while the great things were conceived and executed by the men who had received the broader and more truly architectural training of the great school of fine arts in Paris. If here and there an architect trained only in American schools rose to eminence, he did so by sheer force of

personality, and his success came in spite of his training rather than because of it.

Gradually, however, the schools awoke to the fact of their failure to meet the real requirements of the profession for which they were ostensibly training their men. Schools were reorganized, curricula were revised, Cornell's among the rest, and there gradually emerged a new type of architectural education, which, whatever its critics may say of it, is not a mere copying of old-world methods, and is certainly much better suited than either its predecessor or its foreign competitor to the requirements of American practice. The movement is still in its infancy, to be sure, and no one knows better than the men who are directing it that the type of architectural education so far evolved is far from perfect. On the other hand, no one could be more confident than they that the American schools are at last working along the right lines, cherishing and implanting the right ideals, and paving the way for a broad system of architectural education, culminating perhaps in a central school of fine arts greater and, for us at least, better than anything that the old world has evolved. Into the new



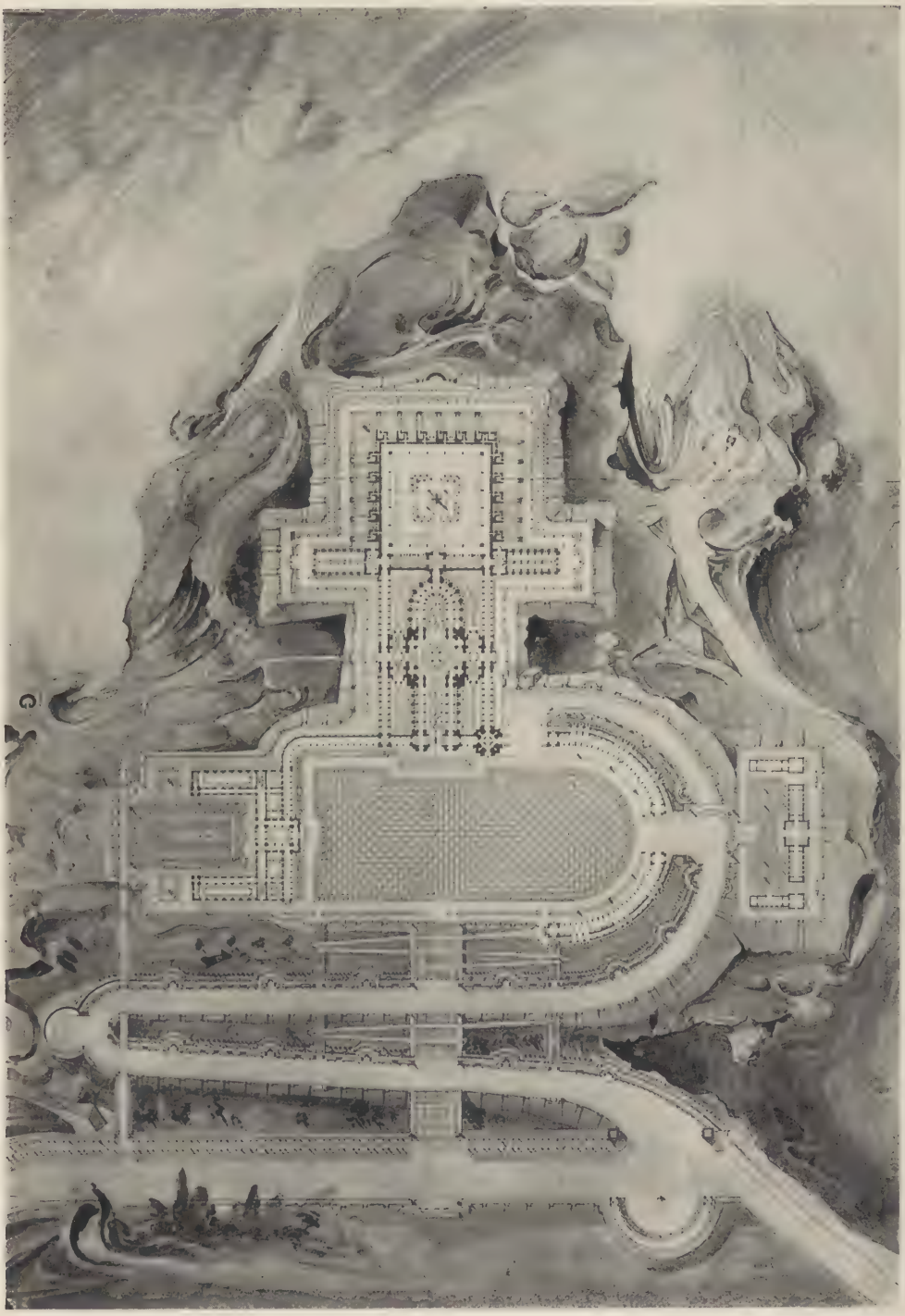
FOURTH YEAR DESIGN—AN AUDITORIUM, SECTION.

movement Cornell has entered heartily, constantly revising her curriculum to make it conform more perfectly to changed ideals, now rejecting a subject that experience has shown to be relatively valueless for the architect's purposes; adding as fast as possible other subjects, the need of which has been urgently felt and expressed; demanding here and there a change in the character of the instruction given in certain subjects in order to adapt them more perfectly to the needs of the architect; making throughout the curriculum the necessary redistribution of emphasis upon the various lines of instruction.

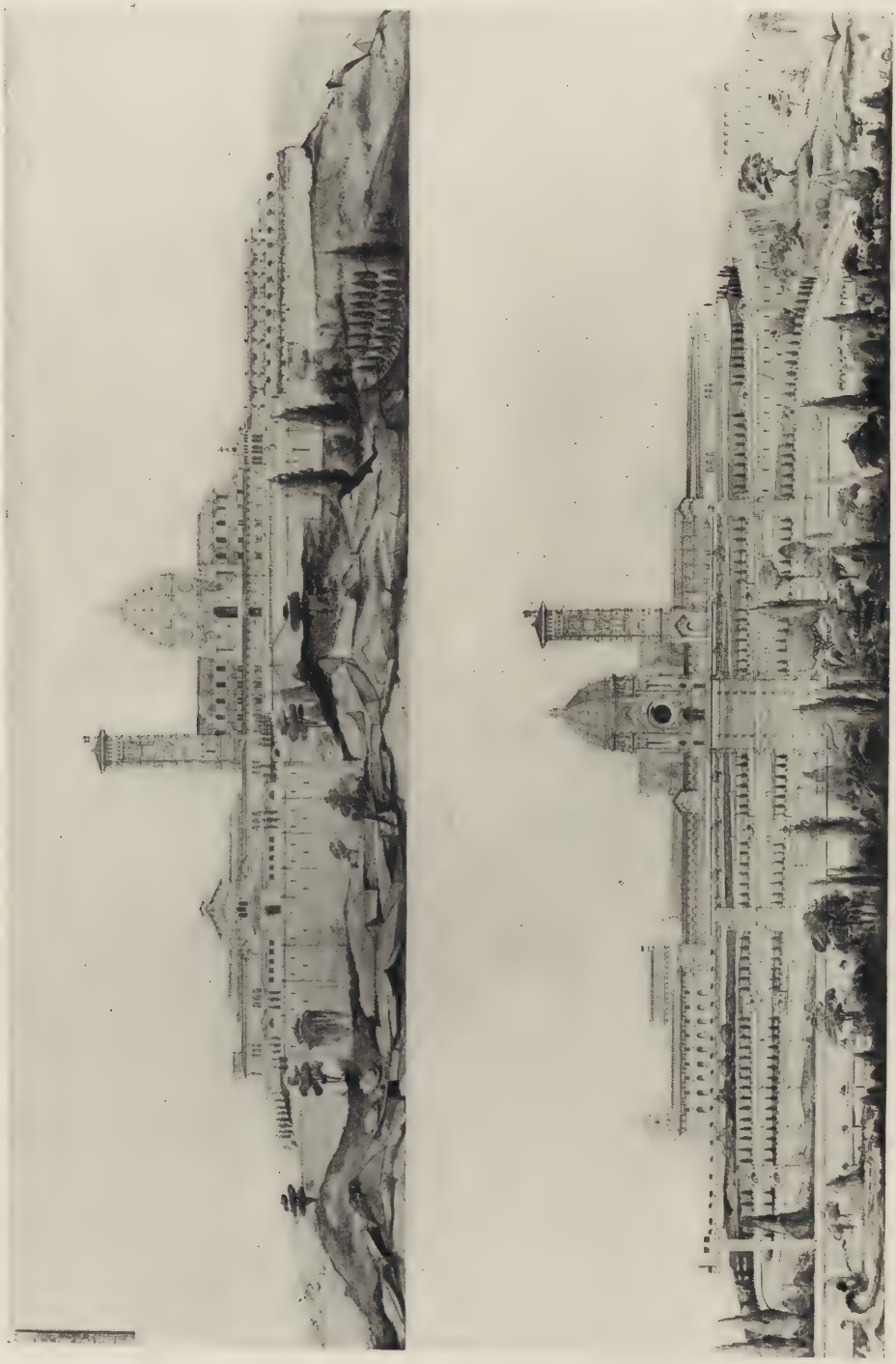
Gradually under the constant demand of the profession that the architectural schools furnish men ever better and better equipped, both technically and culturally, a great change has been wrought in the character and aims of the course. In the earlier days almost the whole of the first two years were devoted to the so-called general culture studies—language, mathematics, history, science—and only another brief two-year period was left for technical training. That hardly sufficed for the making of a passable draftsman; for the making of an architect with any grasp of the history and significance of his art, any workable knowledge of the theory and practice of design or of the principles of construction, it was obviously totally inadequate. To reduce the amount of general training was quite as obviously impossible. Every moment of it and more was needed as preparation for the more specialized work along the same lines to be given in connection with the history of architecture and the theory of design. And so Cornell said in effect to the preparatory schools and colleges: "You must do this work for us. We need the whole of our allotted four years and more for the absolutely indispensable technical training. We cannot take your men until they are ready for that training." Gradually, but as rapidly as possible, she has advanced her entrance requirements, until at the present time they are higher than those of any other school of architecture in the country save only that of Columbia, which, under the plan that goes into operation in the fall of 1907, will become practically a graduate school. These advanced entrance requirements have enabled Cornell to make her training technical from the very beginning of the course; and have misled some too hasty critics, who, concentrating their attention upon the courses given in the school only and quite overlooking the character of the entrance requirements, have remarked, even in print, that Cornell does not require modern language, certain mathematics, etc., taught in other schools and usually regarded as essential to any proper scheme of technical education. The criticism, founded upon a misconception, is of course innocuous.

Not for a moment would the Cornell college of architecture consider the possibility of reducing the amount of "general culture" work required of her students. On the contrary, she believes that it ought to be very considerably increased, particularly along the lines of history, language, and literature; but that most of such additional work must be done in the preparatory schools, whether secondary or collegiate. So far as her own course is concerned, she is and hopes to remain a purely professional school, whose purpose it is to take the properly prepared student; develop in him the necessary visual and manual expertness; give him the necessary equipment of physical and mechanical knowledge; reveal to him something of the past and present significance of his art for civilization and humanity; above all to cultivate his esthetic sense, to develop latent artistic qualities, to set free wherever it exists the creative spirit by giving it such command over the technical means of expression as will enable it to work its will in the world.

To this end, as has been said, the student at Cornell enters immediately upon his technical training, the two main lines, esthetic and structural, along which the work must proceed being at once clearly indicated, although the major portion of the time, as is necessary and fitting, is given throughout the regular course to the esthetic training. For students wishing to specialize in construction for the purpose of architectural engineering special arrangements are made, the com-



FOURTH YEAR DESIGN—A MONASTERY, PLAN.



FOURTH YEAR DESIGN—A MONASTERY.
Side Elevation.
Front Elevation.

bined curricula of the colleges of architecture and civil engineering offering opportunity for a wide choice of subjects. To meet the needs also of that large class of ambitious young draftsmen in offices to whom, because of lack of regular preparation or of pecuniary means, the four year course is impossible, but whose office experience has convinced them of the necessity of the wider training rarely obtainable except in the college, there is offered further the two year special course in architecture. This does not lead to a degree, though the work of the course may be counted towards graduation if the student wishes at any time to complete the regular course.

From the moment he enters the college until he leaves it a large portion of the student's work is of exactly the same character and quality as that given in the great art schools. He begins work at once in freehand drawing, sketching first in pencil simple groups of geometric figures, and then, as eye and hand acquire skill, passing on to drawing from the cast, particularly from the antique, in charcoal and pastel. Nine hours a week throughout the first two years of the course are spent in this work. During the last half year of this period the student attempts expression in another medium also, being given six hours a week of water color painting from still life and from nature. This purely artistic training is continued through the junior year by means of a course in clay modeling and another in pen and ink rendering, sketching and illustration, and culminates in the senior year in the work of the life class. In all of this work the rapidity of the student's advancement depends solely upon his proficiency. Promotion may occur at any time, and it is possible for the student of special ability to accomplish work considerably in advance of that required in the course.

Nothing in the history of the college during the last eight or ten years has been more gratifying to those interested in its future than the enthusiasm with which the students have thrown themselves into this vitally important work and the excellence of the results attained. It is not merely that the students have executed fine drawings—"show pieces" that would do credit to any art school. That is gratifying, to be sure, but for the architect, at least, a deeper satisfaction lies in noting the effect of the thorough training in freehand drawing upon the purely architectural work. Not only has it given the necessary manual dexterity, the indispensable command over technical resources; it has also helped in very large measure to create about the student the artistic atmosphere, to give to him the artistic point of view, without which the all important work of design must end in utter failure. The results have abundantly justified the eight hours and more per week given on the average to this work through the whole four years of the course.

But the architect must be more than technician, more even than technician with a greater or less degree of creative power. He must be a man of broad general culture with a thorough-going special knowledge of the evolution of his chosen art and of its relation to certain great historic movements and to civilization as a whole. To make him this in perfection is beyond the power of any college. Only the "years that bring the philosophic mind" can do that; and they must be strenuous years, too, brimful of hard work and unremitting study. All that any college can do is to lay the foundation, as Cornell does, by means of as thorough and at the same time as comprehensive a study of the history of architecture as time will permit. At Cornell this work is begun in the freshman year and continued through the first half of the sophomore year, the attempt being made to trace as fully as possible the origin, growth and decline of the architectural styles and to show how they have reflected the great movements of civilization. The student is required to familiarize himself with as many as possible of the great masterpieces and the effort is made to cultivate in him a taste for the best in architecture. This work is continued in the junior year by means of a course in the history of the accessory arts of painting and sculpture—accessory at least from the architect's point of view—and later by a course in historic



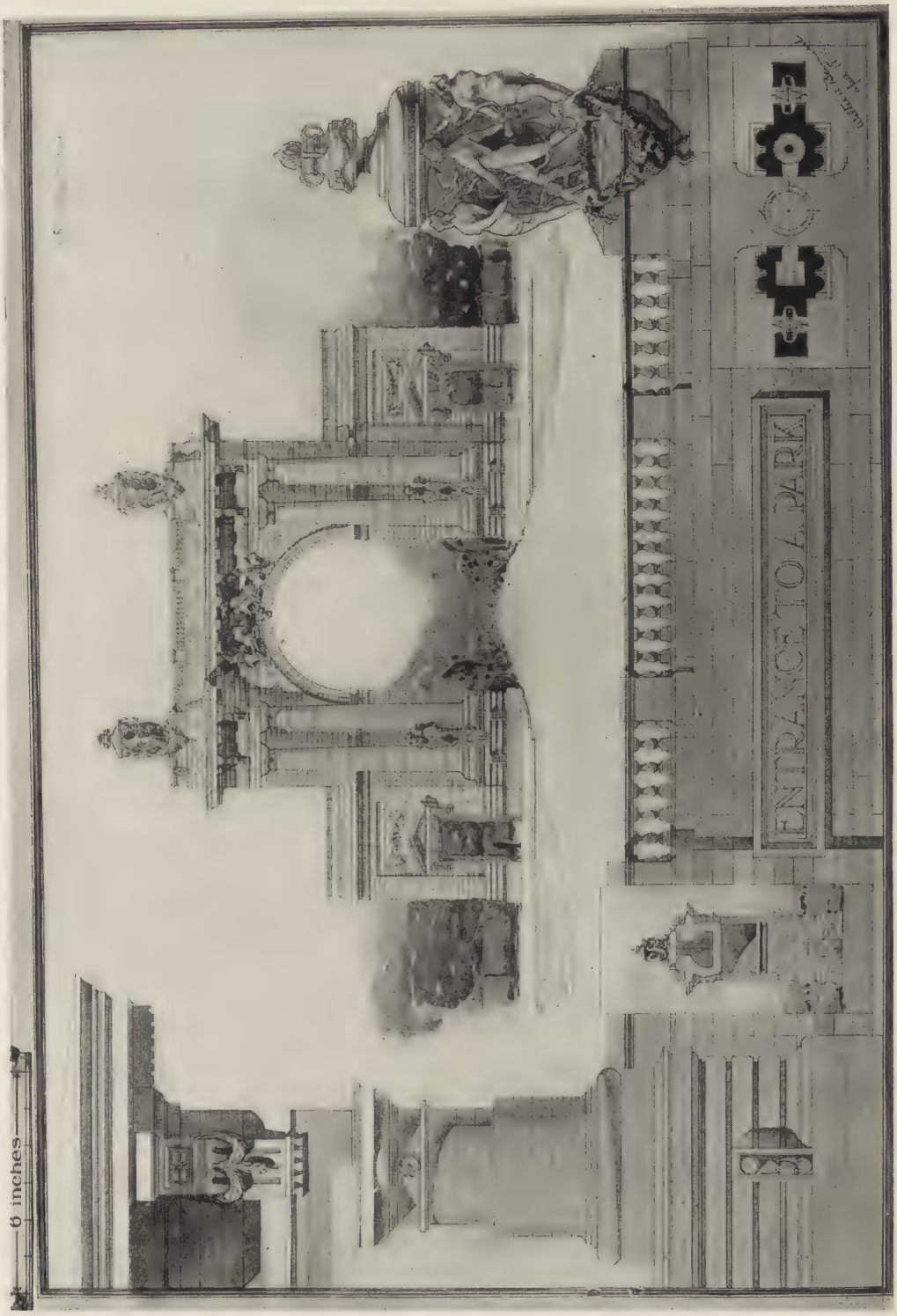
FOURTH YEAR WORK—DRAWING FROM LIFE.

ornament, and is completed in the senior year by a review of modern and current architecture with a thorough-going critical analysis.

It must not be supposed, however, that Cornell in her effort to emphasize the esthetic aspect of architecture sacrifices in any way the vitally important work in construction. The study of the principles of construction and practice goes on hand-in-hand with the work in design. The courses in mechanics, strength of materials, etc., which are required of all students taking the regular course in architecture, are carefully arranged to give a simple but comprehensive training in the solution of such structural problems as an architect is called upon to solve. It is, however, recognized that an architect can not be a specialist in all of the many branches of engineering allied to his profession; and therefore many subjects, such as sanitary engineering, electrical service, heating and ventilating, etc., must be treated in a comparatively superficial way, the instructor of necessity contenting himself with making his instruction sound so far as it goes and pointing the way for further special study. In arranging the courses dealing with problems of practice, such as the courses in working drawings, in details, in specifications, etc., the college finds quite definite limitations upon the work that may be undertaken advantageously. These courses are not intended and do not profess to give to the student such detailed knowledge of office routine as will make him a valuable routine draftsman the moment he makes his debut in an office. They do attempt by means of a short but severe training in fundamental principles and essential details to put into his hands the means of acquiring under the pressure of office practice a completer and more rapid mastery of the necessary routine than either office or college alone could give him. Further, and not less important, these courses, carried along hand in hand with the work in design, assist in no small degree in keeping that work sane and rational.

A knowledge of architectural design in its broadest and deepest sense implies a previous knowledge of every other subject in the course. In the making of a curriculum for a college of architecture it is the "far-off, divine event toward which the whole creation moves," and the work which contributes most directly towards imparting such knowledge receives, logically enough, the greatest emphasis. At Cornell the work of design proper does not begin until the sophomore year. It is the paradise toward which the freshman climbs through a series of stages—elements of architecture (a study of the classic orders with accompanying problems), descriptive geometry, shades and shadows, and perspective—stages not always of absorbing interest in themselves but tolerable in the issue. Once begun, the study of design receives, according to the printed schedule of hours, just one university hour (three hours of actual work), less than all other subjects together. As a matter of fact, it probably does in most cases receive the major portion of the student's time, for the students are almost without exception willing and eager to give to design more than the allotted time.

After the freshman year there are no definitely prescribed hours for drafting-room work. The rooms are open from eight in the morning to half-past ten at night, except on Saturdays, when they close at five, and the students come and go at will. They are, of course, required to accomplish in design, as in other subjects, a definite amount of work, and are further required to do it in the drafting rooms under the supervision and criticism of the professor of design; for the rest, they may arrange it to suit their own convenience. It might be supposed that such apparent laxness of discipline would result in a considerable waste of valuable time. As a matter of fact, not only do the students "put in" in the drafting rooms more time than they did under the old system of definitely prescribed hours, but they are not even then content, and send to the faculty at intervals vain petitions for an extension of drafting-room hours. In reality the laxness is more apparent than real; for, in the first place, the requirements are so heavy that



FIRST YEAR WORK—A STUDY IN THE CLASSIC ORDERS.

few students can idle with impunity; in the second, the competitive spirit among them is so strong that few of them wish to idle.

After the necessary preparatory work of the freshman year the work in design begins in the second year with what is known as second class design, and continues through the year, the student being expected to devote to it about twenty-four hours per week of drafting-room work. Then, in order to counteract any tendency on the part of the student to divorce his design from his construction, he is required to suspend his work in design temporarily and devote a half year to a study of building materials, working drawings, details of construction, and the principles of specification writing; after which, in the last half of the junior year, he enters upon the work of first class design and continues it without interruption to the end of his course, spending during the first half year of this period about thirty hours per week in the drafting room; during the last year about thirty-six.

The work in design, both first and second class, is accomplished by means of a series of problems, part of them major problems requiring from three to six weeks for their solution; part of them sketch problems, which must be completed in a day or two. About six major problems and about ten sketch problems are issued during the year by means of printed programs setting forth the conditions to be met in their solution. When a major problem is issued the student is given a day or more in which to prepare his preliminary sketch or "esquisse." In this he indicates briefly but clearly the principal motives of his design, and to this he must adhere in the execution of the finished drawings. Any radical departure from the solution indicated in the preliminary sketch will place a design, no matter how excellent in other respects, "hors de concour," and no credit will be given for it, the purpose being to teach the student to formulate his ideas quickly and definitely and to compel him to adopt some definite solution at once in order that he may hope to complete his problem in the necessarily limited time assigned to it.

Upon the completion of a problem the drawings are removed to the exhibition room and hung. Here they are "judged" by the whole faculty and graded mention, first mention, second medal and first medal according to merit, each of these grades being equivalent to a certain number of "values" or credits. In the major problems a mention receives one value; first mention, two; second medal, three, and first medal four, while the sketch problems count half as much. For graduation the student must receive a fixed number of values and must complete a specified number of problems. Problems failing to receive a mention may still be sufficiently good to count one in making up the number of completed problems, or they may be so conspicuously poor as to be rejected altogether. The medal grades are rarely attained, first medal having been given to an undergraduate only twice in the ten years and more during which this system has been in operation.

After the judgment has been rendered and the grades determined a public criticism is held in the presence of the members of the class, who enter with the greatest freedom into the discussion. One after another the designs are criticized in detail in such a way that these public criticisms become practically a series of informal lectures on the theory of design, with an abundance of concrete illustration, enforcing in a manner not likely to be soon forgotten the principles involved. As often as is practicable, the professor of design issues, instead of one of his own problems, the current problem of the Society of Beaux Arts Architects. This is completed, judged, and graded in the same way as are the ordinary problems; and then the best designs are sent to New York to enter the wider competition with solutions of the same problem from other schools and from individual draftsmen all over the country. The effect of the Beaux Arts competitions in arousing enthusiasm and intensifying the competitive spirit among the students has been uniformly excellent.

After the judgment and criticism all drawings, except, of course, in the case of a Beaux Arts Society problem, those chosen for the competition in New

York are allowed to hang in the exhibition rooms until replaced by the next problem; so that there is a continuous exhibition of students' work at the college. One of the questions most frequently asked by the lay visitor to these exhibitions is whether the designs are original. The reply is that, so far as such things can be original, they are. Only in the archæological work of the freshmen in connection with their study of the classic orders is there any direct copying of architectural motives. The work in design proper is from the beginning an attempt at self-expression. Not that the student can or in any sense does break with his architectural past. He is, of course, bound by the conventions and traditions of his art; he is constantly borrowing motives and adapting them to the purposes of his design; not infrequently his whole design is conceived very clearly—and very frankly—under the inspiration of some well-known masterpiece; but his solution is, after all, always *his* solution, poor and crude and barren enough sometimes, it must be admitted, but essentially self-expressive.

Throughout the work the greatest care is taken to preserve and develop the individuality of the student, to prevent the swallowing up of weaker or less developed personalities in that of the instructor; and Cornell has consequently escaped the charge sometimes brought against some of the *ateliers,* that all the work issuing from them is only an echo, fainter or clearer, of the work of the *patron.* Her students come to her from the ends of the earth and from every walk of life—raw material produced under the most widely diverse conditions, out of which must be wrought, so far as may be, not skilled draftsmen merely, but creative artists. If she is to accomplish her purpose she must preserve the integrity of the student's personality; must send him out again into the world from which he came not less himself but more, because more fully master of his own powers and more capable of self-expression. That is her faith, the substance of the thing she hopes for.

The cost of taking a course in the College of Architecture varies greatly according to the experience and ability of the individual student in the management of his personal affairs. The fixed charges are comparatively light and consist of a matriculation fee of $5 when the student enters the university, a tuition charge of $125 a year while he is pursuing his studies, and a graduation fee of $10 at the completion of his course, or a total of $515 for a four year course.

The cost of books, instruments, materials, etc., is rather large in the first year, say $40 to $50, but the instruments then purchased will last a lifetime and may be considered as professional tools rather than as temporary supplies. After the first year the expenses for materials, books, etc., will average from $10 to $15 a year, the total for a four year course being from $70 to $90.

The cost of living in Ithaca, including board, room, fuel, and lights, varies from $4 to $10 a week. By the formation of clubs students sometimes reduce their expenses to $3.50 per week or even a little less.

As a general summing up, it may fairly be assumed that the course can be taken on a total expenditure of $400 a year, but that the cost to the majority of the students is from $450 to $600 a year. While there are some who manage on less than $400, it is equally true that there are many others with means less limited who spend considerably more than the $600 a year.

Gertrude S. Martin.



THE NEW CHEMICAL NATIONAL BANK—ENTRANCE.
270 Broadway, New York. Trowbridge & Livingston, Architects.

Engineering in Architecture

The object of this discussion is to insist that a reasonable acquaintance with the principles of structural engineering is of prime importance to the architect in the practice of his profession as a fine art. The architect's interest for engineering is a peculiar interest, claiming his attention for reasons different from those which engage the professional engineer. The greatest architects in history were also engineers, but in a special sense. Not engineers as the term is today understood technically. The engineer makes accurate and elaborate calculations of difficult problems in construction, his primary object being to obtain the maximum strength with the minimum of material and labor. This is not the architect's view of engineering; he regards it rather from an artist's point of view and uses it as it helps him to achieve artistically what he is striving after, not forgetting its utilitarian side which becomes for him, however, a matter of somewhat less concern.

If we should subject the best buildings of each historic period to a rigid examination with regard to their constructional excellence, we should no doubt find them as worthy of being held up as examples for emulation, for their structural qualities as for their more strictly architectural merit. Such an investigation would point to the fact that the architects who designed those buildings which have secured the approval of succeeding generations, had a considerable knowledge of engineering which they were able to apply for an architectural purpose. Of just what this knowledge consisted or how it was obtained we cannot be sure; the fact remains that they knew engineering and regarded it rather as a part of rational architectural composition, a sort of *Gemüthsbildung,* than as an exact science which is to be set down only in formulae and figures.

This kind of engineering knowledge seems somehow to have been eliminated from the training of the contemporary architect who no longer pays much attention to the aesthetic side of engineering, which if it happens to apply to a particular piece of work in hand, is treated independently by the structural engineer. Recent developments in American architecture have produced new relations between engineer and architect. In some cases the architect will frankly admit that he knows nothing about engineering, which he thinks should not in any form be considered as part of his work. In other cases he will give himself credit for knowing as much about the minutae of engineering as the man who makes this his business. These instances are, of course, the extremes which have resulted in much waste to clients and produced endless difficulty between architects and engineers. They do not understand each other and will do their most efficient work in cooperation, only when each of them understands what the other is driving at. To complicate the situation and make it seem more difficult of adjustment, the duties of the modern architect and engineer, especially here, where the world's building activity is greatest, have so multiplied that neither has any longer the time or the inclination to face the issue in a scholarly way. All his spare time is now devoted to the immediate problems of business and the requirements of a complex life, matters that are ever assuming for him an increased importance among his professional assets.

But because the architect of today is no longer as intellectually inclined as his predecessors it is not to be inferred that he is less well equipped to do his work than they were for theirs. *Tempora mutantur* is perhaps the best reason that can be given for the architect's neglect of certain lines of mental activity, and his closer attention to others. The rapid strides of science and the attendant growth of business have had their effect in swerving him from his former course. In his eagerness to keep pace with the times he has practically been forced to rearrange his schedule and this rearrange-

ment resulted in his slighting subjects which concern him even more to-day than they did a generation ago. Engineering is one of these subjects which has experienced its due share of neglect at his hands. That he is awakening to his mistake is becoming more apparent in his increased interest and participation in large engineering projects that are at present in course of construction, especially those in and around New York City; the new bridges spanning the East River, the railroad stations and the ferry terminals claim their share of his attention and even begin to interest the profession at large. And new problems are continually coming up to remind him of the importance which an engineering knowledge is bound to play in his profession in the future and to make him realize that he must meet the demand if he hopes to maintain his position.

Structural engineering in the broadest sense concerns the architect of today from what might be called a *qualitative* point of view. It is for him the art of designing the structure of his architecture, be it wood, stone or metal, in an idiomatic and aesthetic manner. It enables him to determine in a general way the character and distribution of the structural members of the building and gives him a freedom in designing which he cannot safely exercise without this engineering knowledge as a basis. Engineering in this sense is an art, as it should be, for the architect's purpose. And now comes the engineer's side of the problem which, while it must partake of the *qualitative* side to produce the most satisfactory results, is chiefly *quantitative* in nature, being an accurate computation and proportioning of members to effect the maximum of stability with the greatest possible economy of material. The distinction between *qualitative* and *quantitative* engineering is not one between theory and practice, but rather between the art and the science of engineering, between *how* for the architect and *how much* for the engineer.

But the architect, such are the exactions of modern practice, cannot afford to confine his knowledge of enginering to qualitative considerations entirely. While a thorough understanding of the basic principles of statics in building construction is indispensable to him, he must possess enough quantitative knowledge of the subject to be able to solve readily the simpler problems that come up in daily practice. To this extent he should be a structural engineer, including in his store of information the necessarily related mathematics, physics and empirical data. But if he respects his professional reputation as an architect, let him stop here, not go further and assume that he can do the entire engineering of a complex construction just as the experienced engineer would do it. If he assume such a responsibility he does so unwisely, for he is taking upon himself something to which he cannot possibly do justice. Engineering is a separate profession, requiring of its members a lifetime of study and devotion, out of which alone can issue the experience which is required by the complex developments of recent building construction. Moreover, the architect cannot, in order to serve his clients' best interests, assume the dual position of architect and engineer. He should have, for his purpose, a sound understanding of the fundamental principles of the science of construction so that it may in his hands become part of his art and enable him to recognize at a glance the desirable solutions of a given problem. Such a familiarity with engineering puts the architect and the engineer into the proper professional relations when it becomes necessary for them to co-operate on a piece of architecture, admitting that each has legitimate work to do. It enables the architect to design intelligently and structurally and therefore economically; it simplifies considerably the work of the engineer, and if he happen at the same time to be a contractor, it serves as a check on his work, thus saving time and money for the client.

It should be stated here that the position of consulting engineer is not a subservient one, neither is it one of entire independence. In designing a building the architect has legitimate work to do; so has the engineer, if there is need for one, and the better each understands the

function of the other, the more effective will be their co-operation and the better the building. To accomplish such an understanding it is of course essential that the engineer should sympathize with the architect's point of view, namely, to produce an artistic as well as an economical building. It is necessary for him to bear constantly in mind that he is helping the architect to produce a piece of architecture. To do his best for economy is not sufficient; he must accept the architect's co-operation and advice to achieve a result which shall be pleasing to look at as well. The architect is primarily an artist in his buildings and to assist him in producing the best effect should be the engineer's idea first and last.

As the architect exerts his influence chiefly for what is artistic he, too, should not forget his true function when he is expressing himself in terms of engineering. For him the two elements that are so often called irreconcilable and inconsistent should be inseparably connected. If he would conceive his design in this spirit we should not so often encounter, in buildings that have considerable merit, that which cannot be easily and economically constructed or what had better not been built. Good architecture requires such a co-ordinate consideration of good taste and engineering as are dictated by a highly developed aesthetic sense which the architect alone has the opportunity to cultivate. It should be as impossible for him to conceive his architectural forms as distinct from the engineering principles involved in the problem as it is for him to think of plans, elevations and sections as distinct conceptions. The skyscraper problem still offers him ample opportunity to represent the two elements in their just relation to each other. Perhaps the solution of this perplexing type of building has its secret in this proper relation between engineering and architecture, which remains an undetermined quantity awaiting the meeting of the two professions on common ground.

The architect's lack of appreciation of a good foundation in the fundamental principles of structural engineering and his failure to properly equip himself in this respect may be set down chiefly to two causes, the inefficiency of the present system of architects' handbooks on the one hand and the apparently unsuitable training in the subject that the architectural schools offer.

Many reference books have been issued by the steel companies for the use of the architect to save him time in making his engineering computations. These books are admirable in their way, no doubt, but how many architects are there that use them as they were intended to be used, with an understanding of the terms employed and of the basis of the calculations on which the tabulated results are founded? We venture to say the number is small and the majority who refer to these books use them without understanding the most elementary principles of engineering. Shearing forces, bending moments, moments of inertia, radii of gyration and moduli of rupture mean very little to the man who consults the handbook without understanding its basis. A purpose no doubt is served by these handbooks, but whether this is really a useful purpose is questionable. The simpler problems of engineering that come up in daily practice it is absolutely necessary for the architect and the efficient draughtsman to be able to solve readily. Many of these problems are not to be found in the handbooks in such a form that he can readily recognize them unless he possesses some working knowledge of the subject, and he is generally puzzled when such a problem comes up. The result is that in order to be sure of not making a mistake he will call for an excessive amount of material and thereby waste the client's money. Or, if he be very conscientious and persistent, he will waste his time in trying to find the correct solution of a problem which he knows he should have at his fingers' ends.

The amount of engineering that an architect needs to know in order to meet successfully his daily needs, is, on consideration, found to be very little, but this little he must know perfectly. But it is not possible for the

average draughtsman to obtain even this small amount of engineering knowledge from the architectural engineering reference books as they are at present constituted. He is therefore left in the lurch and must make the best of the poor opportunities for improvement that confront him. He must content himself with accepting on faith whatever his common sense will not tell him. The hand book is for him a sacred book whose value he implicitly relies on, but whose basis is sealed to him. He is told that if he will turn to a certain page and column he will find there the answer which he is seeking, and a great many men really acquire an extraordinary facility in thus using these books. But whatever insight into the why and the wherefore they may have gained has come from this constant practice of looking up certain particular examples. This method of enlightenment on the subject must necessarily be not only incomplete but inefficient as well. A more profitable way of acquiring the essentials would be by adopting some rational and progressive plan of procedure, and according to this bringing out by practical examples the governing principles which must be mastered in order to be able to solve successfully any example of a like kind that could ever arise. To follow such a program even for the simpler problems would, no doubt, require some acquaintance with the elementary mathematics and enough physics to explain the constitution of bodies as considered in the statics of building construction. It would be unnecessary to include as preliminaries for the practical man of the office, such subjects as chemistry and geology, processes of manufacture and strength of materials; it may be safely assumed that the training he has got in these subjects as the result of his practical experience is sufficient for his purpose. At any rate, he cannot afford to spend more time on these subjects at the expense of such knowledge as he cannot obtain in the office. What he needs most of all is an enlightened point of view of the general field of structural engineering as it is applied to architectural practice. Such a mental development as this plan contemplates would enable him to use the architectural engineering handbooks intelligently and profitably to his employer or his client.

From a critical examination of the architects' handbooks of engineering it will not be difficult to see why a proper grounding in structural engineering should be so lamentably scarce among architectural draughtsmen and many architects. We should, however, expect something better in this respect of the man who has had the advantage of training in an architectural school, but here again the almost utter lack of a modicum of engineering knowledge is surprising and naturally leads one to look for the reason. Do the courses in architectural engineering in the schools of architecture as they are at present constituted, give the coming generation of architects what they will require to meet the demands of their practice? The results in practice up to date would seem to indicate a flaw somewhere in the fabric. It may be that these courses are at present conducted too much from the engineer's point of view and not enough from the architect's, or it may be that the students lack the preparatory training without which they can hope to benefit very little by these courses. However hard it may be to say just where the trouble is, it is none the less a real difficulty which would bear investigation.

H. W. Frohne.

NOTES & COMMENTS

THE NEW CHEMICAL NATIONAL BANK, NEW YORK

Walking up Broadway opposite the north end of City Hall Park the spectator's attention is arrested just before he reaches Chambers Street by what must seem to him a strange fragment of classic architecture. It is in fact No. 270 Broadway, and as the inscription in its frieze proclaims, the Chemical National Bank. It is the entrance to the bank, but where, he asks, is the bank itself, or is it one of those banking institutions which have recently erected buildings that are as a rule more conspicuous by their locations and characteristic architectural treatment than by their great size? If he will walk to the corner of Chambers Street and look west he will find the answer to his question; the street front of this bank is some distance west on Chambers Street, giving the banking room a fine north light through the large dome which is to be seen in the illustration. The bank therefore possesses the advantage of being on Broadway without taking up the excessive frontage which would be demanded by its large banking room. The plan, moreover, gains by the disposition of the lot an advantage which it could not enjoy if it were placed on a rectangular plot of equal area on the corner occupied by its tall neighbor, the National Shoe and Leather Bank. The shape of the lot on which the Chemical National Bank stands practically determined its plan, which would seem especially well suited to the purposes of a banking institution. Entering at 270 Broadway through the monumental entrance referred to above one passes through a spacious vestibule into a vaulted public corridor which is not only artistically effective by its dimensions but serves particularly well its function as the artery of business circulation, which is very important in a building devoted to this use.

The banking room is a spacious and lofty square room covered by a steel dome on pendentives with window arches on the north and south sides of the square and barrel vaults on the other two sides. While the main effect of this room is pleasing architecturally, there is a feeling of weakness at the corners where the mouldings of the large pendentives mitre and come down on the denticulated Doric cornice which has been carried all around the room. The great crushing weight of the dome does not here at the corners appear aesthetically to have been properly taken care of.

The treatment of this dome on the exterior is more satisfactorily managed, exposing to view both the barrel vaults and the pendentives. But here again the treatment of the great arch on Chambers Street seems unduly heavy and, it may even be said, a bit out of scale with the rest of the architecture of that façade. It is conceivable that, even though it may have been necessary for certain reasons to have this band of stone as wide as it has been made, it could have been given some form that would have effectually disguised its proportions. Its treatment as a single band with a huge fillet on the outside does not accomplish what one would have thought the designer's natural object, namely, to reduce its scale. This band is, however, but one feature of a composition which is in other respects restful and dignified. It is a frank expression on the exterior of what happens on the interior, and in this it is distinctly to be commended. It is rather in certain minor matters that one cannot altogether agree with the architects' choice. The colonnade is imposing in itself but fails for some unaccountable reason to show at its best; something appears to be missing in its setting, the curtain wall is bare, and the bases of the columns are not satisfactorily tied together, the base block being unceremoniously interrupted, in the one case, for a sidewalk lift and in the other for an area grating. One may not, of course, question the presence of such utilitarian features, but one may expect to see them treated in such a way that they do not seriously affect the larger matters of architectural composition.

SPRINGFIELD'S CITY HALL

It is a rather unusual month in which something is not done in Springfield, Mass., that has civic art interest. This has been especially true of late, when the city has been working on three great schemes: the adoption of an improved building ordi-



THE NEW CHEMICAL NATIONAL BANK—CHAMBERS STREET FRONT.
Chambers Street, near Broadway, New York. Trowbridge & Livingston, Architects.
Photo by Floyd E. Baker.



THE NEW CHEMICAL NATIONAL BANK—THE BANKING ROOM.
LOOKING TOWARD THE ENTRANCE.
Trowbridge & Livingston, Architects.
Photo by Floyd E. Baker.



THE NEW CHEMICAL NATIONAL BANK—THE ENTRANCE CORRIDOR.
270 Broadway, New York. Trowbridge & Livingston, Architects.

nance, the reclamation of two miles of river front for park purposes, and the establishment of a civic center. A long step toward accomplishing the latter was taken the end of April, when the City Council took final action in determination of the site for the new city hall, ordering a taking up of the options that had been secured on property between Court and Pynchon Streets, diagonally across from Court Square. The final action was secured two years after the plan was first formally proposed by ex-Mayor Dickinson; but it was worth waiting for. Even in Springfield the gods' mills grind slowly. Thus workers in other places make take heart of grace if their Rome is not built in a day.

A NEGLECTED CHANCE IN NEW ZEALAND

An article in The Arena for April discussed at some length the housing operations that have been undertaken in New Zealand. The point of view was the sociological, not to say the socialistic, as was entirely proper since the movement has had a remarkable development there. But the matter of interest to architects is that there were illustrations of the houses erected by the government and rented to workingmen. There was a chance, in this wholesale government construction, to secure an artistic ensemble, and to show what good results could be obtained for a little money. But it

was miserably thrown away. The houses are as thoroughly bad, in their exterior elevations, as any that private enterprise constructs at similar cost in this country. That, unfortunately, is saying much, since under such circumstances the contractor is often the designer. The meaning is that the United States is not quite at the bottom of the scale artistically, since we would probably have insisted upon better government work. There is at least that comfort in the pitiful showing.

EXCHANGE PLACE, PROVIDENCE

The improvement of Exchange Place in Providence is again before the public, as it has been more or less for many years. Lately the Rhode Island Chapter of the A. I. A. has ordered a competition among its members for plans that shall best unite beauty, dignity and utility. Providence possesses a very unique possibility in this open space, in the heart of the city—with the Union Station's approach opening into it, and the city hall, new federal building, and new fire headquarters already located on its borders. But it is essentially a space to be used, not simply decorated. City and interurban trolleys gather in it, and their use of it may well be encouraged for the convenience of the public, such is the proximity to the steam road station. Whether the city should permit, however, the transformation of some of the space into a deliberately planned open-air trolley station—as has been suggested—is a matter on which there is a good deal to be said, both *pro* and *con*. If Providence has an unique opportunity, it has also a special responsibility, which happily is realized, and a good solution of the problem is sure to be of great suggestive value to other cities.

REMODELING THE PLACE DU CARROUSEL

Exchange Place in Providence and Copley Square in Boston are not the only famous city open spaces for the remodeling of which there are interesting plans. A new scheme for the Place du Carrousel in Paris has been worked out by M. Redon, the architect to the Louvre. Improvement was much needed there, and few are the strictly ornamental spaces of equal area where it would count for more than at this central point of the artistic world. Redon proposes a fountain basin at each end of the middle space, the fountains to be decorated, like those on the terrace at Versailles, with groups of sculpture, not so high as to interfere with the perspective. M. Injalbert



THE NEW CHEMICAL NATIONAL BANK—THE BANKING ROOM FROM THE ENTRANCE CORRIDOR.

270 Broadway, New York. Trowbridge & Livingston, Architects.

Photo by Floyd E. Baker.

has been entrusted with their modeling. The surrounding space will be laid out in lawns and parterres, with electric candelabra here and there. In front of the Carrousel arch, there are to be figures symbolical of military glory and holding crowns. For these M. Fremiet makes the designs. As a central *motif* there is proposed a figure of Liberty, to be executed by M. Mercié, in harmony of spirit with the Gambetta Monument. Back of the monument, the square wil' be devoted to the Arts, the statues of Poussin, Watteau, Puget, Mansard, and others showing in relief against a wall of verdure, as in old time French gardens.



THE NEW CHEMICAL NATIONAL BANK—DIRECTORS' ROOM.
270 Broadway, New York. Trowbridge & Livingston, Architects.
Photo by Floyd E. Baker.

HANDLING MILLIONS

Two reports recently submitted to the Board of Estimate in New York are sufficiently striking to command a place in any current history of American municipal development. One was submitted by Chief Engineer N. P. Lewis, in response to a request from the board. It gave the cost of improvements for which the Board of Estimate will have to make appropriations before January 1, 1910. These were simply the improvements to which the board is now committed, or—as in the case of the allowance for school sites and buildings—they are only the average allowance called for in former years. As a whole, the figures are doubtless conservative. Yet they total to $200,000,000. Not one cent of this is for maintenance. It is all to make New York a better place in which to live, a finer city. One gains from it an idea of how vast is this annual development work, how immense the normal civic improvement energy of a growing city even without any special civic art enthusiasm, how truly the building of cities is steadily in progress. The figures suggest, too, how great proportionately is the satisfaction gained by the public from the small amount that is occasionally added to the grand total for purely decorative purposes. The other report, submitted by Comptroller Metz, gave the rents which are paid by the city for space in office buildings for departments that have overflowed

the municipal accommodations. These rents amount already to a million dollars a year, and they are steadily growing; while added to the cost is the inconvenience of scattering departments all over the city, as well as the impropriety of the custom. But from simply the financial standpoint, the figures made a powerful argument for a great municipal office building. Its designing must be, for architects undertaking it in the proper spirit, an unusually interesting problem.

ANOTHER CITY IMPROVEMENT REPORT

Greenville, S. C., is the latest city to join the lengthening procession of those progressive municipalities by which comprehensive plans for future improvement and beautification have been secured. In this case the Municipal League was the active agency that obtained the plans, and the experts employed to prepare them were Kelsey & Guild, landscape architects, of Boston. The Report is published in a pamphlet, attractively illustrated with plans and photographs, offering a good discussion of Greenville's possibilities. In an introduction it is noted that American cities have only lately discovered that "municipal beauty really means increased municipal wealth, a lower death rate and better living conditions," and that "city parks, outside of their direct benefits, distribute the city's desirable residence districts, and vastly increase their areas." It is also observed—wisely, indeed, but with interesting suggestion of the essentially landscape point of view—that "it must be persistently borne in mind that the dominant landscape features in and around a city constitute the basis of any worthy or successful scheme of improvement." This is italicized, and it is stated that in the observance of this law a city attains a charming individuality, "entirely impossible of attainment through artificial means of any magnitude whatsoever." The Report discusses the city plan, including inner and outer ring boulevards; the development of the streets and the public utilities upon them; the railway station and highways that enter the city; the grouping of public buildings; "municipal art"—statues, fountains and bridges; sanitary matters and the abatement of nuisances; parks, playgrounds, gardens, and cemeteries. With reference to the civic center these assertions are made: "There is an opportunity for Greenville to gain a distinction architecturally at present unequalled in the South. The commercial value alone of adopting and adhering to a worthy style or architectural motive for future public buildings will repay all reasonable effort. Southern conditions, landscapes, and traditions suggest colonial, Moorish or mission styles as appropriate and adaptable. The general design adopted should not be departed from, especially with grouped buildings, though the schools being widely separated might safely allow greater variation." There is quoted in another connection, this other interesting dictum, by George A. Parker: "I think it is safe to say that any business or building properly placed always increases the value of all other property in the street or neighborhood; and it is equally true that the building or business located out of place lessens the value of surrounding property." These are statements to which a popular publicity is well given.

TO PAY FOR IMPROVEMENTS

Though legislative action, or a constitutional amendment, that will give to the city of New York power to acquire, in connection with a public improvement, sufficient property adjoining the improvement to enable the city by its re-sale to recoup all or part of the works cost, is a matter of vital interest to the people of New York, it is not a subject on which it will be easy to arouse popular enthusiasm. Few legislative propositions contain in them greater possibilities of material benefit to the people of the whole city than does this, which the City Improvement Commission made an essential part of its Report. Yet the people are very unlikely of their own motion to rise and demand it. For that reason, action by bodies of citizens that can, and do, appreciate it, is, as the Mayor has pointed out, exceedingly important. Such action was that taken in the resolution unanimously passed at a meeting of the New York Chapter of the A. I. A., in the spring, when the guests included members from all the societies that make up the Fine Arts Federation. If such authoritative artistic support could now be supplemented by equally authoritative endorsement from business men and from lawyers, the movement would have a long start. There was given here last month a synopsis of a bill drawn for the Pennsylvania legislature, to confer this power on the City of Philadelphia. The Architectural Record is now in receipt of the following abstract of a law that is on the statute books of Ohio, the appeal for it having been made especially by the Group Plan Commission of Cleveland.

Sections 10 and 12 of the Ohio Municipal Code Law, which is a general provision for all municipal corporations in the State, are as follows:

Section 10. "All municipal corporations shall have power to appropriate, enter upon and hold real estate within their corporate limits for the following purposes:

12th. For establishing esplanades, boulevards, park ways, park grounds, and public reservations in, around and leading to public buildings for the purpose of reselling such land with reservations in the deeds of such resale as to the future use of said lands so as to protect public buildings and their environs and to preserve the view, appearance, light, air and usefulness of public grounds occupied by public buildings and esplanades and park ways leading thereto."

BOSTON PLANS

The various ambitious plans for the improvement and beautifying of Boston, recently put forward in the report of the Boston Society of Architects, by no means exhaust the subject. With the spirit for improvement abroad, and the splendid Charles River basin in process of development, many a grandiose scheme may be looked for. Such a plan, interesting for itself and for its source, has lately been brought out by Sylvester Baxter. It would place the City Hall, and other appropriate public structures, on the basin embankment, between the lines of an extended Arlington and Harvard Bridge. A short, broad, diagonal way would connect the embankment with the Public Garden, bringing all into a connected park system, while a subway under the embankment and tunneling Beacon Hill would afford quick and easy communication between the City Hall and the State House and Court House. The Boston Herald gave two pages to the project, with maps and illustrations, one of the latter, stretching across the two pages, presenting the scheme attractively in birds' eye view. In discussing the plan, which appears to involve some filling in, Mr. Baxter takes the position of those members of the Society of Architects who claim that the river is now too broad for good effect. It is magnificent, but too magnificent, since the buildings cannot be in scale with it.

There is much in the article, aside from this project, which is of interest. Discussing the Back Bay filling of years ago, Mr. Baxter asks that there be fancied the effects that might have been secured if, instead of filling in the whole area, some channels had been scooped through the flats and some islands made of the excavated material. "Might we not have had a delightful Venice, Amsterdam, or Stockholm?" He adds that when the Back Bay improvement was planned, an alternative proposition for Commonwealth Avenue actually did plot a canal throughout its length, instead of the present central planted space. Again, referring to the Charles River basin, and the long neglect of this great aesthetic asset, he says that when plans for the public parks were discussed in Boston the popular feeling was that the first thing to be taken in hand should be the basin, but that Frederick Law Olmsted "sagaciously" advised against such action, saying: "That is something you have already. You are sure of it. It cannot be taken away from you. So you had better wait with that and first do the other things which you need, but which will not wait for you." Mr. Baxter also says that when the metropolitan park system was planned, Mr. Olmsted said to him: "While we mourn lost opportunities, while we regret much precious scenery that might have been saved to posterity, yet on the whole it seems better that the work should have waited till now, when we view things so much more comprehensively and can do them so much better than formerly we could have hoped to do." The reflection is a consoling one to keep in mind, for, if much has waited until almost the present day, our progress in breadth and length of outlook has certainly been considerable within even the last few years.

THE APARTMENT HOUSE UP TO DATE

It is surprising that practical America has not yet had its eyes opened to the fact that housekeeping can be made into a regular business venture without assuming any hotel features which would make it too expensive for common people to take advantage of. It is also a surprise that no architects or builders have, so far, found any solution of the problem which necessarily must and certainly will be found, if we expect ever to be able to lead a daily life undisturbed by the everlasting servant question. Still another cause of surprise is furnished by the non-economic and impractical manner in which an ordinary dwelling house for, say, thirty families is arranged. The supply of water, heat and light has been centralized, and it would be difficult to find any person who preferred to return to the use of the well and its bucket, or kerosene lamps or

heating stoves after he had once been accustomed to push a button in order to get light, or to turn a faucet or knob in order to be supplied with water or heat.

But it seems not yet to have been realized that the most important centralization of all, that in regard to the preparation of meals, is the greatest asset of improvement which can be added to a dwelling house, as it concerns infinitely greater expense accounts than those relating to water, gas and heat supply. (I wish in this connection to register my most earnest objection to heating apparatus without ventilation. Such an arrangement marks, in my opinion, a retrogression, as it deprives people of good air without giving them a fresh supply in exchange. And since it is not lawful to stifle people, I would suggest the enactment of an ordinance prohibiting the installation of heating apparatus when there is not at the same time some provision made—it can be done at a very insignificant cost—for scientific ventilation.)

On the occasion when my building in Copenhagen was inspected by the representative of the German government, the Prince of Reuss, and his architectural expert, M. de Bruyn, imperial councillor and member of the architectural commission, the editor of the Berlin "Lokal-Anzeiger," who accompanied them, expressed his wonder that the idea of building such houses had not been exploited long before, since it seemed so perfectly natural and reasonable that it was hard to imagine how it should ever have been otherwise.

It would not do to try to arrange the daily life of ordinary people on the hotel plan. At the bottom of the heart of every American is the desire to have a home of his own, a place which he can call his, where he may receive his friends, and where his wife's supervision can make everything comfortable according to her own ideals. Aside from this, hotel life (even in so-called apartment houses or hotels) is much too costly, and it can in no instance be considered a satisfactory substitute for the real home which every person longs for, needs and deserves to enjoy. An ideal mode of living would, of course, be achieved by having one's own house with a retinue of capable servants, but the chances of carrying out this plan are becoming less all the time, while if the house should be situated in the suburbs of a large city, there instantly arises the difficulty of obtaining servants (it being far from easy to procure them in other places), and the standard of living is quite too expensive for the middle class of society.

When planning, mentally, the erection of a house for people of this class, one must in the first place arrange for the application of all technical improvements which have been devised up to date. There should be facilities for cleaning, by the vacuum method in the flat itself, conducted through tubes from the power plant of the property. The cleaning of windows should be looked after by the proprietor (syndicate, company or the like), and shoe-polishing can be done by machine so handily that there should be no need of having it attended to outside the building, and the tenants would naturally have nothing whatever to do with the scrubbing of stairs. In regard to domestic help, people living in a house planned in this manner can follow their own desires. In flats corresponding to the ordinary ones where two servants are employed, there will be one room set apart for servants' use, because it is likely that a family of this class will be loath to dispense with the services of private domestic attendants. In houses appointed especially for families with small children it would be proper to adapt a room on the ground floor as some sort of a kindergarten where the little ones might be left when their parents—such as have no servant or nurse maid—are out.

For smaller families there will be no provision made for a servants' chamber, thus already making a saving of one room. Furthermore, the kitchen is omitted in each flat, since the food is delivered from the central kitchen of the building by means of electric dumb-waiters, which require only a minute to bring meals up to the flats on the top floor. How impractical, at the present time, is the preparation of the daily meals in a house with, for instance, thirty families! Thirty cooks, with thirty gas ranges and almost numberless utensils are preparing a multitude of different dishes (if they know how to cook at all), and afterwards comes the thirty attacks of dish-washing, and then again still more cooking for the next meal and still further dish-washing, in a tedious, never-ending routine. This compartment, the kitchen, with its cooking and incidental gas smell and other fumes, really has no place in a home where people hope to live in peace and comfort, while every one must admit that it is unsanitary to have cooking taking place in a flat, or in any place in immediate proximity to sleeping rooms. The cooking itself always furnishes a source of wrangles between mistress and servant, and a continuous changing of servants is one of the unavoidable results. Even in the relations between husband and wife the cooking is oftentimes a disturbing factor,

and the situation is constantly becoming more serious as the years pass, because skill in cookery is becoming gradually more rare and persons willing to accept servants' positions with families are becoming alarmingly fewer each year. For these reasons the adopting of another mode of living is, in fact, nothing but a necessity, pure and simple.

Is it really profitable nowadays to build ordinary dwelling houses? I do not think so, and I am therefore going to explain the economic aspect of a house according to my plan.

First of all, it is desirable to have the present hostile relations between landlord and tenant changed, if not into friendship at least to such an extent that they will be brought closer together by their common interests. This is easiest to accomplish by having the tenant take over a part of the mortgage on the property, on which part he receives interest, besides getting a certain bonus out of the profit on the enterprise. The tenants (mortgage holders) are together represented by an attorney, who acts as an intermediary between them and the proprietor. The mortgage share is held by a tenant only as long as he occupies a flat in the house; when he vacates the latter, the new occupant takes over the mortgage share at its par value. With such a system it can be expected that the tenants will not, as is the case at present, consider their apartments simply as temporary dwelling places, which is the cause of the frequent removals and the constant repairing incident thereto.

In order to get a clear view of the financial side of an enterprise conducted according to my plan it is only necessary for any one to take paper and pencil and calculate for himself, as it can hardly be expected of me that I should be thoroughly familiar with American conditions after but a fortnight's stay in this country.

Let us suppose that the income from an ordinary house accommodating thirty families, with two servants each, is, for instance.....$———

Otto Fick's house is built exactly along the same lines and consequently yields the same income..... ———

There is saved in Otto Fick's house wages of thirty cooks at..... ———

Deduct from the running expenses of the central kitchen..... ———

Surplus ..... ———

On the purchase of food for thirty families there can be estimated a saving of 10 to 15 per cent. on the retail price ..... ———

Therefore Otto Fick's house yields an income of..... ———

While an ordinary house on the other hand yields only..... ———

This calculation has probably shown that my plan gives an income three times as large as that from an ordinary house and yet the saving derived from the omission of private kitchens, with their costly appurtenances, is not included herein.

The general risk of an enterprise of this sort is considerably lessened under my plan owing to the fact that the tenants hold the mortgage on the house, which is not to be built until such mortgage is subscribed for in full. Besides, since the building is erected on the same plan as an ordinary one, it might, in case of necessity, be rented out as an apartment hotel, or as a common flat house, in the latter case by making one room of each flat into a kitchen.

And let us now, in conclusion, contemplate how the tenants live in a house of my design. They feel like partners in the enterprise, and yet they have nothing to do with the rest of the occupants. They get their meals sent up to their own dining-rooms, at any hour that suits their convenience, and their food is not of the restaurant variety, but of the wholesome home-cooked kind. They might if they chose furnish the manager with a list of such dishes as are not wanted in their bill of fare. When temporarily absent from the house they might have an adequate reduction on the price of the meals not taken there. They might receive company and have their friends entertained in proper style, if only sufficient notice thereof were given beforehand to the management, or they might invite an occasional visitor to partake of a meal without the host or hostess fearing that the supply will give out. They might keep a servant regularly, or hire one for special occasions, their option in this respect being absolutely unhampered, and the cost of living in this manner becomes no greater than it is under prevailing conditions. In addition to this, the proprietor would receive on his part a greater revenue from his property than he does at present.

This is no Utopia, for I have managed such a house myself during a period of two years in a little country with a population of barely two million inhabitants. Afterwards, traveling in Germany and England, my scheme has been received with enthusiasm, but to the numerous requests for the establishment of such houses which I have had addressed to me from the last named countries, I have given the invariable answer

that I have only one great ambition, which is to organize a syndicate that shall be ready to build houses of this kind in any part of the world whenever a sufficient number of prospective tenants apply for shares in the mortgage.

Since I have been successful enough to become the inventor of a new mode of living which simultaneously has all the features of a profitable business venture, I will not be content with having one house built here and another there, but wish to have my idea carried into effect on the broadest basis possible. O. F.

The foregoing plan by Professor Fick, of Copenhagen, for a more comfortable way of living in apartment houses, seems to us to offer, without our pretending to consider its domestic economic aspect, suggestions of signal value to American apartment house architecture. We refer particularly to the financial feature of Professor Fick's scheme in which each tenant subscribes to a share of the mortgage. The apportionment of the mortgage shares should, in order to accomplish the desired end, be such as to leave the control of the house in the hands of the tenants, who should band themselves together to direct its planning and designing, choosing their own architect who would give them what they want. The responsibility for the result, as far as the architectural and practical merits of the design are concerned, would then rest with the tenants; if the result is not everything that it should be, they alone would be to blame. Although the merit or demerit of the apartment house would depend largely upon the taste and kind of the tenants which would determine the kind of architect employed, there could hardly fail to result a decided improvement on the type of our average American apartment houses. The problem of their design and planning would be likely to be attacked from a more rational point of view considering first the health and comfort of the tenants and afterward the gain of the speculator instead of vice versa, as is done under the present unsatisfactory system of financing.

There seems no apparent reason why Professor Fick's apartment house should not be feasible in our larger cities. Any solution of the problem that would tend to place the financial control where it belongs would without question find favor especially in New York where the apartment house problem has assumed its greatest proportions. Moreover, Professor Fick assures us that it is a gilt-edged investment yielding a considerably higher rate of interest than is made under the present system. We can see no cause for its not being a good investment and, in fact, one which the speculator could ill afford to disregard. From it he would receive an increased return on his money over the present system, in consideration of which he would be giving up the control of the enterprise for his own purposes. Even without the kitchen feature which Professor Fick advocates, an apartment house built in New York under the tenants' cooperative plan of financing would be a first-class investment which is very well worth while to consider seriously. Several well-known artists in New York City have demonstrated the feasibility of cooperative building, having some years ago erected a studio building on this principle, and with such signal success that similar projects may be looked for in the immediate future. If cooperative building is desirable for the artist folk we can see no reason why it should not find, with equal success, a wider and more liberal application in cases where the demand for better dwelling houses is urgent.

On page 894 of Sweet's Indexed Catalogue of Building Construction for 1907, there appears a list of buildings in which Standard Plunger Elevators have been installed, together with their respective architects. In this list the Marbridge Building, New York City, has been erroneously attributed to Robt. D. Kohn; the architects are Townsend, Steinle & Haskell.



4.—PLACING A KILN.



5.—INTERIOR PANEL DECORATIONS. MATT-GLAZE TILE.

Tiles, Decorative and Structural

I.

Historical Introduction

The use of clay as a building material is very ancient. In all parts of the world, as soon as man emerged from the caves and began to construct dwellings of reeds and grass, he smeared the walls with clay to render them impervious. From this to the solid mud wall was not a long step, and in a climate almost tropical structures thus built proved almost everlasting. Such work has no necessary connection with the making of pottery, for the aborigines who roamed the plains and dwelt in tents used clay for vessels and even decorated them in a crude and simple manner. Among the mound dwellers and the builders of houses, however, a greater skill was displayed. As the people began to build there was the establishment of a more settled habit and greater care could be bestowed upon the work.

Permanence of dwelling further had the natural result of an improvement in the house itself. When the first house was built it consisted, probably, of sloping walls meeting at the top to form a roof. The door was the only opening and the interior was, naturally, dark and ill-ventilated. As more space was needed the obvious plan was to enlarge the area and, as the walls would not now meet without undue height, they were made vertical and a separate roof was evolved. At first built of branches and mud, this improved step by step until rafters and tile afforded possibilities of ornamentation out of which the most beautiful effects have been developed in all parts of the world.

The exterior walls remained plain, but with the opening of windows and the admission of light the interior had to be



1.—SLIP-HOUSE, WITH PLUNGERS AND SCREENS.

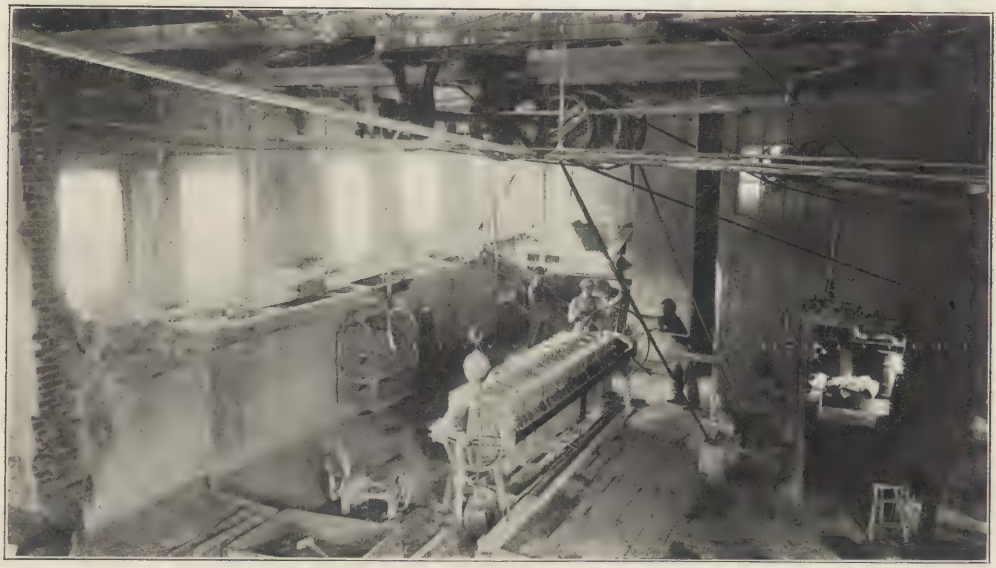
properly finished. First a plain plastering of clay, then a rude sgraffiato decoration, to be followed by the use of color and, finally, a combination of the two.

In the Eastern lands ruled by the Mohammedan power, the decoration of interiors has been studied for centuries. Not in the homes of the people, for the traveler is familiar with the low, dome-roofed huts of Teheran, but in the mosques and palaces, where every effort has been made to beautify. Marble and other costly stones have been used, the most perfect illustration being the Taj Mahal near Delhi, in India, but, after all, there has been found no more satisfactory finish for interior walls than glazed tile.

Why the evolution of interior finish should have resulted in the development of wall tile is not difficult to see. The climate was hot, interiors were dark, furnishings were few; the tile offered a surface which was cool, which reflected what little light there was, which was easily cleaned and which supplied a subject of continual interest. These advantages could not be found in any other material. Stucco was easily damaged and could not be cleaned; hangings were hot, dark and dusty, and wall-paper, such are the compensations of life, had not been invented.

Tile for interior work thus grew in popularity and the art spread until, when the Arabs and Moors conquered portions of the Iberian peninsula in the eighth and the twelfth centuries, respectively, the knowledge of enameled pottery and of decorative wall tile entered Europe.

The progress northward was slow. Wars and rumors of wars distracted the nations. The crusades, while they stimulated trade and brought home much knowledge of the Orient, were mainly instrumental in promoting the arts of war. Damascus steel was estimated more highly than Damascus tile, and interest centered in the camp rather than the court. When France and Italy entered upon the age of art, luxurious hangings and costly paintings adorned the interiors and marble supplanted clay in the enrichment of structure. Furthermore, the comparative rigor of a Northern climate demanded warmth of texture in wall coverings, and the use of window glass admitted abundant light and rendered a reflecting surface unnecessary.



2.—SLIP TANKS AND FILTER-PRESS.

The ancient tile disappeared in the

growth of middle-class vulgarity in Europe, and it has been reserved for the home builders of the twentieth century to assign to the ceramic artist the task of covering their walls with a product which meets every modern condition. For a time the pure and hygienic surface of the glazed tile was deemed only appropriate for bath rooms and kitchens. Then, as the possibilities of color and texture were revealed and the perfectly incombustible nature of burned clay asserted itself, fireplaces were fitted with tile and finally, as it was realized that what was beautiful in a mantel was also beautiful in a vestibule, position after position was captured until there is no place in the dwelling where the simple and interesting surface of glazed pottery is out of harmony.



3.—MAKING DRY-PRESS TILE.

II.

The Manufacture of Tile

In the shaping of clay wares there are three possible conditions in which the material may be used. These are: liquid or slip, plastic or clay, dry or dust. For tile making the liquid material or slip is rarely or never used except as a decoration or after-treatment. Nevertheless, clay in preparation is always reduced to the liquid state first. The reason is that only thus can a clay mixture be purified. Clay in mining and transportation gathers quite an amount of foreign matter; sticks, leaves, stones, sand, coal-dust and particles of metal are among the common impurities, and in order to remove these perfectly and rapidly, the clay is reduced to a thin cream by rapid agitation with water and is strained or screened through a silk fabric of 120 meshes to the linear inch. This effectually removes all extraneous substances and the purified slip is ready for the next operation.

In the olden time the water was removed from the clay by evaporation, but now this is done by the filter-press. The press consists of a series of chambers, each lined with canvas and entered by a pipe. The slip after screening is forced either by pumps or compressed air into these chambers. The water escapes through the canvas walls and the clay, now stiffened to a plastic mass, remains within. For certain operations the clay, after some kneading, is ready for use. It is in the familiar form of a plastic substance, such as is used by sculptors and modelers. It is well adapted for the potter's wheel, for making cups, plates and saucers and for plastic tile. This

method of manufacture will, however, be dealt with later. At present it will be best to follow the clay through its various stages and conditions. The bulk of modern tile are pressed from damp dust and the clay for this process is taken from the filter press, placed on cars and run into a dryer. Here the remainder of the water is expelled and the cakes of hard clay are sent to the crusher. This machine may follow one of several types. There are the jaw crusher, the roll crusher and the eccentric crusher. The material is not hard, but speed is necessary. The first operation simply breaks up the cakes into pieces the size of a hickory nut and this having been accomplished, the heap of broken clay is moistened with a jet of water, turned over and left to mature. The moisture presently permeates the whole mass and the clay is returned to the crusher, which now reduces it to a fine powder which is screened through a sieve of about 20 mesh. Sometimes this process is varied by crushing fine at one operation and subsequently steaming the clay. The chief objection to this plan is the excessive amount of dust, which is not only injurious to the workmen, but causes considerable loss of clay. The powdered clay, containing about 12 per cent. of water, is stored in damp-proof receptacles until it is needed at the press. For the production of encaustic tile the color is provided for in the original mix, and every tint is kept by itself. For tile of which the body mass is white a white clay is, of course, used. Red clay may form the base of red or brown tile, and light colors, such as blue or green, are produced by adding metallic oxides to the white clay. In all this great care is taken to regulate the shrinkage which the clay undergoes in the fire so that all the tile, of whatever color, may be uniform in size.

The tile press is quite simple in construction. It consists essentially of a steel box and a screw plunger. The box has a loose bottom and the plunger is fitted exactly into the top. Now, when the box is filled with the moist clay and struck off level, the plunger is brought down by the workman who operates it by means of a heavy flywheel. The dust is compressed between the plunger and the bottom piece and, being reduced to about half its bulk, is solidified into a tile. The plunger is then raised, the bottom pushed up by a foot-lever and the tile removed to be dried and burned. The nature of the surface of this tile is, of course, dependent upon the plunger and the movable bottom. If an embossment be desired, one or other of these, according to circumstances, is shaped to the required design and the clay follows the shape. Thus moldings and other ornamental patterns are produced or a tile with a decoration in relief is pressed.

The tile as they leave the press are set in saggers, such as are used for pottery, except that tile saggers are made square for the economy of space. Perhaps it should be explained that saggers are boxes made of refractory clay. They protect the tile from the direct action of the flames and, as they can be piled one upon another, enable the kiln to be filled to the best advantage. The kiln is much the same as that used for burning pottery. Coal or oil or natural gas is used as fuel, according to circumstances, and the heat is allowed to rise very gradually so that the moisture may be slowly expelled. When this has been accomplished a more rapid fire is maintained until every part of the kiln has reached the required temperature. For encaustic or unglazed tile no further treatment is necessary, but the product, being sufficiently cooled, is sent at once to the warehouse to be sorted and laid out. The dry-press process for making tile has been resorted to very largely on account of the comparative ease with which a true surface can be produced. Tile made from damp dust are nearly always straight, while it is extremely difficult to make a straight tile from plastic clay. On the other hand, the dry-press tile always exhibit a hard and unsympathetic surface, so that there is a strong demand for a plastic tile which shall enable the artist to avoid this limitation.

The manufacture of plastic tile is different in every respect. The clay body is prepared in the same way at the first, but instead of being dried out it is kept

in the moist condition and there is added to it a proportion of a material called grog. Grog is nothing but ground pottery. It may be fragments of broken tile, unglazed, or it may be crushed bricks or any other form of burned clay. Its use is to render the clay mass open and porous, to enable the moisture to escape freely, to counteract shrinkage and to keep the wares straight. Sand would not serve the same purpose because the small quartz grains of which sand is composed swell when heated and tend to burst the ware. Grog does not do this and hence it is indispensable in a plastic tile. The proper proportion of grog being added to the plastic clay, the whole mass is turned into a kneading machine, called a pug-mill, and from this the clay may be taken to be used by hand or it may be expressed as a solid mass, to be cut up by passing a tight wire. Plaster molds are provided, each the exact size of the tile, due allowance having been made for shrinkage, and either a blank is cut with the wire or the clay is slapped and pounded into the cavity. The plaster of which the mold is made speedily absorbs the moisture from the clay, and the tile is turned out onto a board to complete the drying. At this stage modeled embossments are wrought out, the same clay being used or, if a repetition be desired, the mold itself bears the embossment in reverse. Tile thus made are not so true and accurate as are those pressed from dust, but, on the other hand, they possess the indescribable quality of plasticity and exhibit an individuality which the machine-made tile always lacks.

The choice betwen the two methods of manufacture must depend largely upon the nature of the glaze to be used, for while a transparent glaze will reveal the structure of the tile and the nature of its surface, a matt glaze, being in its construction thick and opaque, will conceal both.

Of course, it must be borne in mind that a modeled surface is not possible in a dry-press tile; the only way a relief can be produced is, as already pointed out, in the die itself, while a plastic tile may be freely treated in the clay.

Transparent glazes consist, for the most part, of a silicate of lead and lime. The required mixture is ground in water to form a thin cream and in this the face of the tile is dipped. The coloring matter is introduced in the form of metallic oxides, cobalt for blue, copper for green, iron for light brown and manganese for dark brown. These can be mingled and intermingled in endless variety, so that almost every hue is attainable. The glaze flows slightly in the fire, so that varying thicknesses produce lighter and darker tones. Unfortunately it has not yet been found entirely possible to prevent the cracking of these glazes, known as "crazing" by tile makers. Glazes that will not craze are made, to be sure, but it nearly always happens that the action of the cement in laying will cause the crack, even though the tile may have remained perfect for a long time in the warehouse.

Matt or dull glazes are different in construction and manipulation and are now in great demand. The glaze probably owes its texture to an excess of alumina, but the actual role played by this ingredient is not exactly known. Several theories have been advanced by ceramists, but so far none has been proven. The matt glaze is colored in the same way as the clear, but the texture is dependent upon a very thick coating being applied to the tile. This also makes possible certain schemes of decoration which are not applicable to bright glazes. Two or more glazes may be applied to the same surface and only enough flowing will result to bring the surfaces into harmony. A modeled design becomes an integral part of the tile and a general balance of form is the result.

Matt glazes are applied either by dipping or with a brush and, as is also the case with bright glazed wares, the tile are burned when lying flat. Saggers are used in the second burn just as in the first, but the tile are now laid upon clay shelves, so that each one is kept from contact with its neighbor. The fire for the glaze may be much more rapid than for the clay, but great care is generally exercised in cooling. If a glaze be cooled

rapidly it scarcely has time to get rid of the bubbles which invariably form in a melting mass, and when the kiln is opened there are found minute blisters or pin holes where the surface ought to be smooth and clear.

III.

The Use of Tile

It is not necessary here to point out the advantage of glazed tile in bath rooms, light shafts and underground offices. Those things are of the past and are sufficiently obvious. A new day is dawning, however, in the use of ceramic decorations and in its advance there will be revealed possibilities at present unperceived.

In the first place, home building and decoration are progressing along the lines of structure. This began with the exterior as the early English half-timber treatment was revived. The tile roof also belongs to this era, the decorative effect being strictly of the structure itself. But the same idea has passed to the interior. No longer is a smoothly plastered wall used as a vehicle for wall-paper. The plaster is now rough cast and finished in its natural texture and tone. Wood is no more enameled and gilded, but is so treated as to emphasize the value and beauty of the grain. And all this is to the good. But there are limitations to the use of rough-cast work and open timber. There are occasions when grandeur and richness are demanded. Not only may a wainscot or frieze be filled with richly-toned tiles glazed in a delicate texture matt, but panels, arches and ceilings may be similarly treated. Such a surface is not only structural and artistic, but perfectly sanitary, for the whole room, may be washed without damage. Think of the advantage this would be in a smoky city, where rough-cast walls and even smooth wall-paper must become unsightly in a few weeks.

Furthermore, a tiled surface offers unlimited scope for artistic expression. Painted ceilings and decorated walls have never been absolutely satisfactory because the work is surface work and not structural. Tile, on the other hand, is ceramic throughout. Even the old Dutch blue tile had this advantage, how much more the modern modeled surface, covered with a glaze of soft texture and glowing color. The artist has carried out his design in an imperishable material and has expressed himself in tones which will neither fade nor decay.

Marble has a natural beauty and conveys the idea of costly embellishment, but marble must lack the personal note and is not, therefore, artistic. Tile possesses this personal attribute. It belongs to the class of production by which human thought is expressed and hence it lays claim to rank with works of art.

This idea is new. It is not easy to dissociate the thought of tiled walls from the bathroom and the basement. Even colored tiles are unconsciously relegated to the soda fountain and the bar room, but a new concept has arisen. The modern texture-glazed tile of tender hue is available for the whole of the home from vestibule to boudoir and the possibilities of its use are awaiting development.

Charles F. Binns.

[Illustrations 1, 2, 3, 4, by courtesy of the Beaver Falls Art Tile Co., Beaver Falls, Pa. Illustration 5 by courtesy of the Rookwood Pottery Co., Cincinnati, O.]

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The Bank Buildings of Baltimore

During the past ten years, a very marked change has taken place in what may be called the living accommodations of the banks in the largest American cities. Ten years ago the majority of the large banks all over the country occupied either the ground floors of sky-scrapers, which they rented or owned, or else they occupied buildings which were more than a generation old and which were a source neither of profit nor of prestige. At that time a bank, in case it decided to erect a new house for its own occupation, almost always built a sky-scraper, because it was believed that 'sky-scrapers' were the only structures which would be profitable upon an expensive site in the business centre of a large city. A number of savings banks had erected buildings of some architectural pretensions exclusively for their own occupation, because a savings bank was usually situated on less expensive land in or near a residential district, but one could count upon the fingers of two hands the number of important national banks and trust companies which had erected low modern buildings exclusively for their own habitation, and there was no expectation that they would in this respect pursue a different policy in the future.

During the past ten years, however, the directors of American banks have in many instances seen in this respect a new light. They have found it desirable and profitable to erect low buildings on the most expensive land in the city exclusively for their own occupation; and their reasons for so doing constitute an interesting indication of the transformation which is taking place in the banking business of the United States. This demand for low and architecturally dignified buildings is testimony at once to the increasing prosperity of American banks, and to what may be called a consciousness of their own social position in the world of finance. Their situation has become so strong, they feel themselves to be so firmly established, their surpluses bear such a large proportion to their capital and assets, that they have become veritable financial institutions, and, like all institutions, they want to inhabit a building which shall symbolize their financial stability and exuberance. The old idea was that a huge office building was the best architectural expression of this condition of being permanently plethoric; but it does not require any great discrimination to discern that a huge office building is no source of distinction to the bank which owns and inhabits it. All office buildings look very much alike, and the erection of one by a bank may be an excellent investment, but it has no value as an expression of the peculiar position occupied by a bank with a huge surplus and an impregnable financial standing. It was inevitable that as the banks became more conscious of their permanence and of their wealth they should seek for an architectural symbol which would distinguish them from a man who erects a sky-scraper as an investment.

It is natural, however, that the practice of erecting low buildings of some architectural pretensions should have

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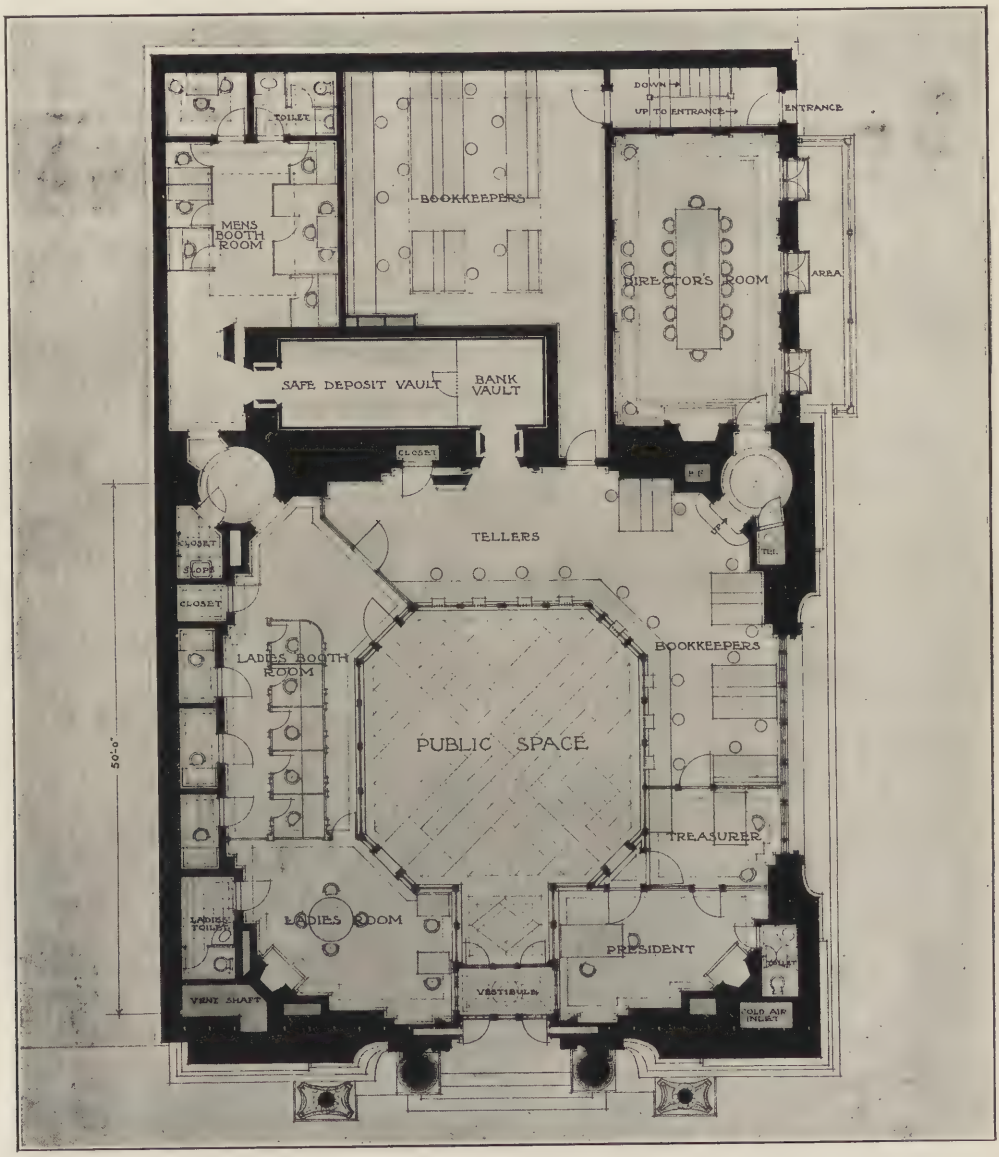
been carried further in the smaller than in the larger cities. The directors of a bank, no matter how huge its surplus may be, will think twice before they erect a one-story building on land which costs from $150 to $300 a square foot; and, as a matter of fact, not very many such buildings have been built in cities like New York and Chicago. In New York, the Chemical National Bank, the National Park Bank, the Knickerbocker Trust Co. and one or two other institutions have contented themselves with low buildings, and the National City Bank is at the writing considering a similar plan for its new home on the site of the old custom-house. Still in the majority of cases the metropolitan banks either own or else are lodged in sky-scrapers, and the same is true of Chicago. It is cities like Buffalo, Cleveland, Washington and the like, in which the banks prefer and can afford low buildings; and it is in another city of this class, whose banks are almost exclusively housed in one-story buildings, erected for the banks' own exclusive occupation. In Baltimore this idea has been carried



PROVIDENT SAVINGS BANK.

Baltimore, Md. Sperry, and York & Sawyer, Associated Architects.

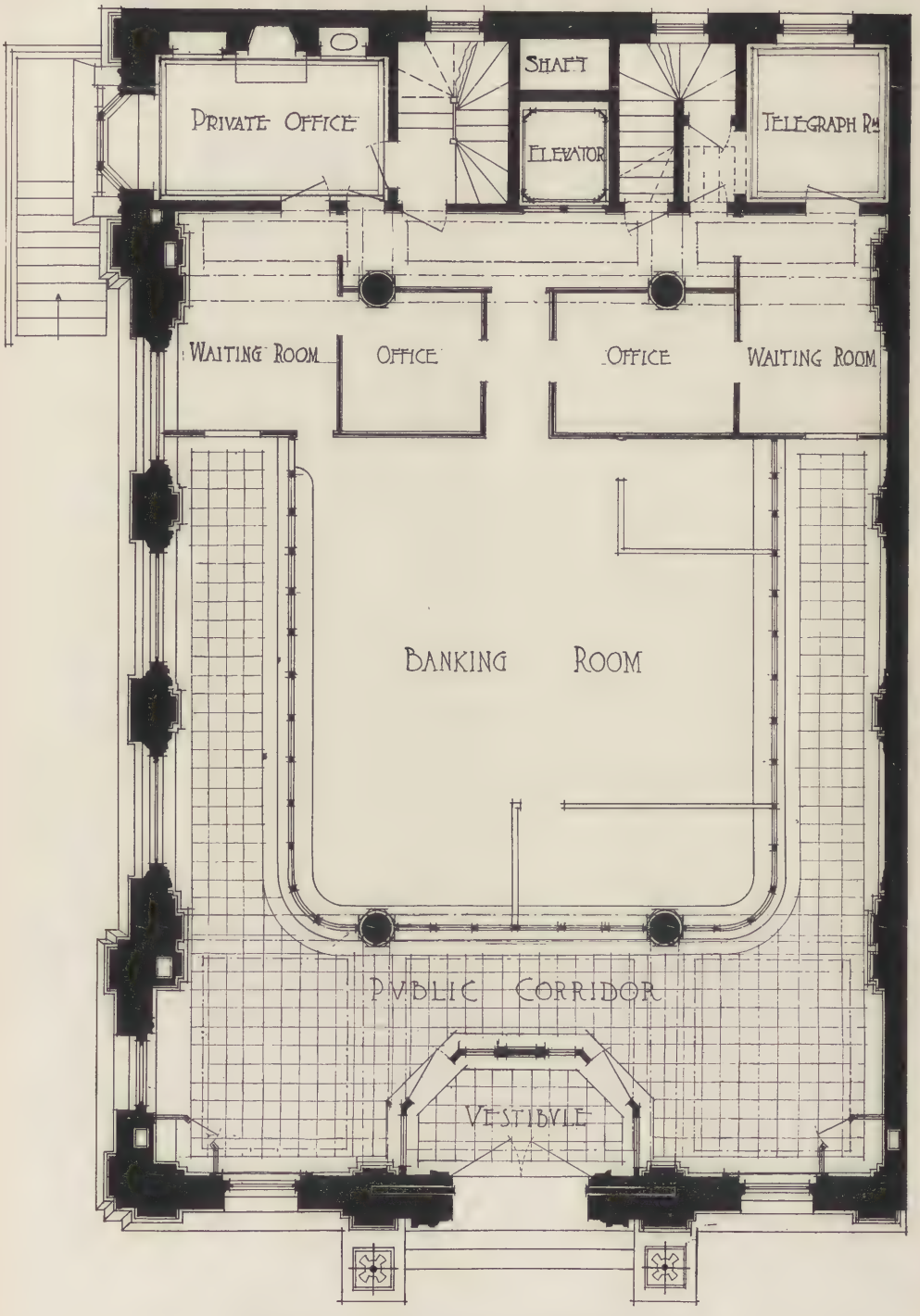
further than in any other American city, and the peculiar prominence of Baltimore in this respect is dependent upon a very numerous and complex set of conditions. It is the city in which a large number of southern industrial enterprises are financed, so that its banking capital is larger than that of other cities of the same size. At the same time, being southern in its



PROVIDENT SAVINGS BANK.

Baltimore, Md. Sperry, and York & Sawyer, Associated Architects.

Baltimore, is, of course, one of the oldest cities in the United States, and it occupies, compared to its population and size, a very important financial position. traditions and sympathies, it is naturally a very conservative place. Ten years ago its leading banks were old and very respectable institutions, some of which



BANKING HOUSE OF ALEX. BROWN & SONS.

Baltimore, Md.

Parker & Thomas, Architects.

had been in existence under different forms for more than a century. They had become imbedded in the financial life of the city even more firmly than the old families had been imbedded in the city's social life, and with such a well-established situation they did not need at that time to be very enterprising in their methods. The directors were satisfied with a patronage which did not have to be sought, but which came to them because of a long established and confidential association. Certain tradesmen and manufacturers had always dealt with them, and it was expected that the good custom would continue. Under such circumstances it is not strange that the houses which the Baltimore banks inhabited were behind those of other large cities—that they were lacking not only in architectural distinction, but in many new practical conveniences, which had become generally introduced into the banks of other cities. It was not extraordinary that some of the banks which boasted of the largest surpluses and could best afford a suitable modern habitation were housed in the most ordinary buildings.

Ten years ago, however, the banks which carried on a commercial business in Baltimore were either private banking firms or else were organized under the national banking act, and during the past ten years the rapid increase in the number and size of the trust companies, organized under state laws, has revolutionized the banking business of the city. During that period eight out of the eleven local trust companies have come into existence, adding $7,000,000 to the banking capital of Baltimore. As a consequence of this increase in the number of banks the keenest competition was



BANKING HOUSE OF ALEX. BROWN & SONS.
Baltimore, Md. Parker & Thomas, Architects.

substituted for the old easy-going methods, and among the forms which this competition took was the erection of new, more imposing, and more convenient buildings. And when the practice of erecting such buildings began, it was natural in Baltimore that the banks should erect low buildings for their own occupation rather than sky-scrapers. Land is not dear in that city, the banks were rich, and their owners possessed pre-eminently that sense of their institutional character which would prompt them to erect a habitation which symbolized such a standing in the community. The consequence was that even before the disastrous conflagration in February, 1904, a number of the more important banks had either erected new buildings of some architectural distinction or else had renovated and modernized the old structures they occupied.



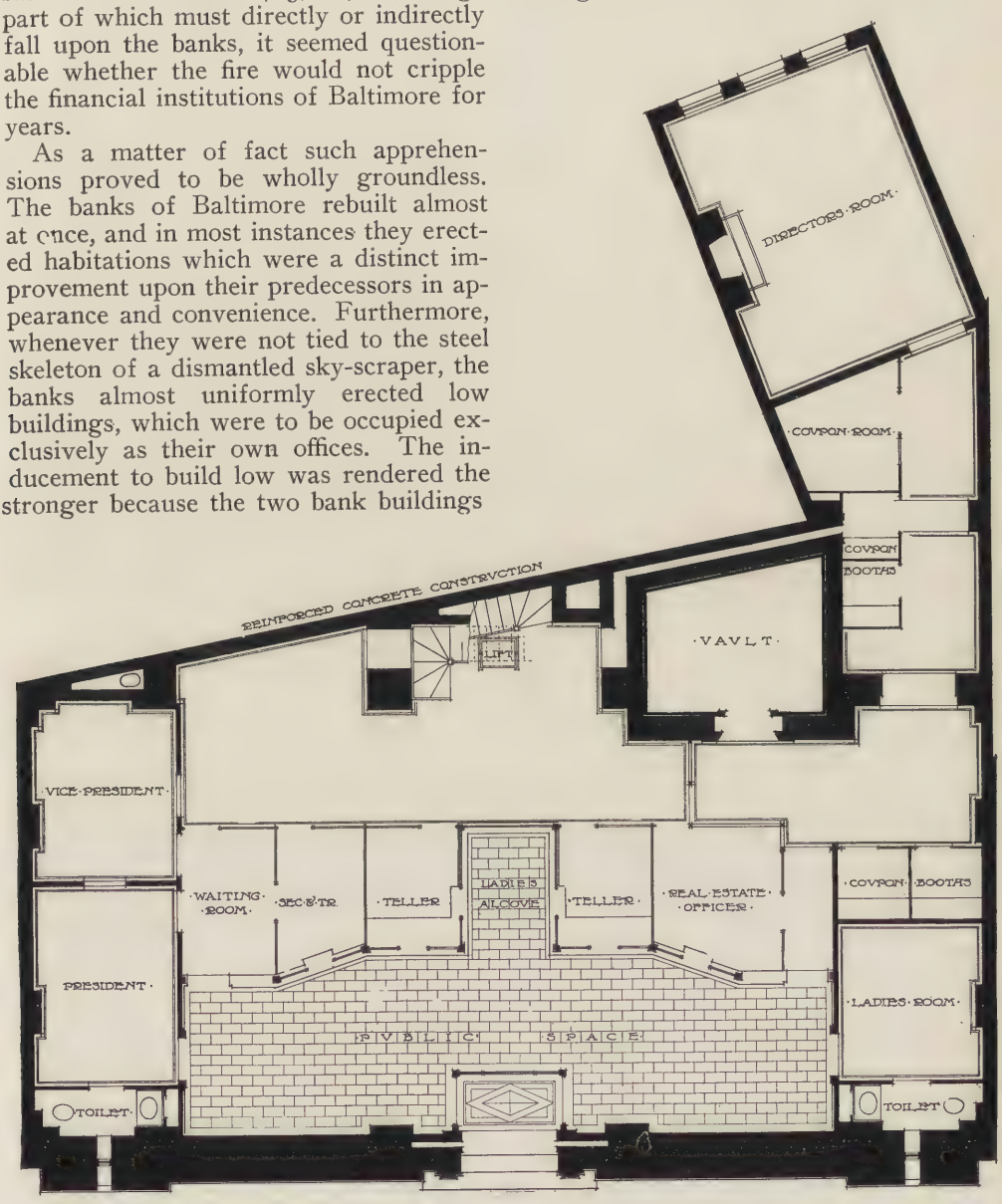
COLONIAL TRUST COMPANY.

Baltimore, Md. Ellicott & Emmart, Architects.

The destruction wrought by the great fire was so complete that it enormously increased the need of new buildings, while at the same time it made the banks more than ever inclined to make their new habitations comparatively low structures. The fire had not spared the financial district of Baltimore. This district centered around German St., and an area of a few blocks in that vicinity held the principal office buildings of the city and the majority of its financial institutions. The houses standing throughout this whole district were simply obliterated by the fire. The homes of no less than twenty-four of the leading banks and trust companies were so largely damaged as to need rebuilding. Only one bank in the burned district—the Safe Deposit & Trust Co.—escaped almost unscathed and opened its doors for business as soon as the fire was extinguished. Among the new structures wholly or partly destroyed were those of the National Union Bank and the International Trust Co. The home of the National Bank of Baltimore, a massive brownstone building, was almost a total loss—not even the walls being left intact. The building of the Merchants National

Bank, which was a sky-scraper, was practically wrecked, while all that was left of the tall structures of the Continental and the Union Trust Companies were the steel skeletons. Inasmuch as the loss from the fire not covered by insurance amounted to $25,000,000, a large part of which must directly or indirectly fall upon the banks, it seemed questionable whether the fire would not cripple the financial institutions of Baltimore for years.

As a matter of fact such apprehensions proved to be wholly groundless. The banks of Baltimore rebuilt almost at once, and in most instances they erected habitations which were a distinct improvement upon their predecessors in appearance and convenience. Furthermore, whenever they were not tied to the steel skeleton of a dismantled sky-scraper, the banks almost uniformly erected low buildings, which were to be occupied exclusively as their own offices. The inducement to build low was rendered the stronger because the two bank buildings in the burnt district which had been least damaged by the conflagration—those of the Safe Deposit & Trust Co. and of Brown & Sons—were both low structures, while two modern office buildings on corners opposite were so badly damaged that one had to be razed to

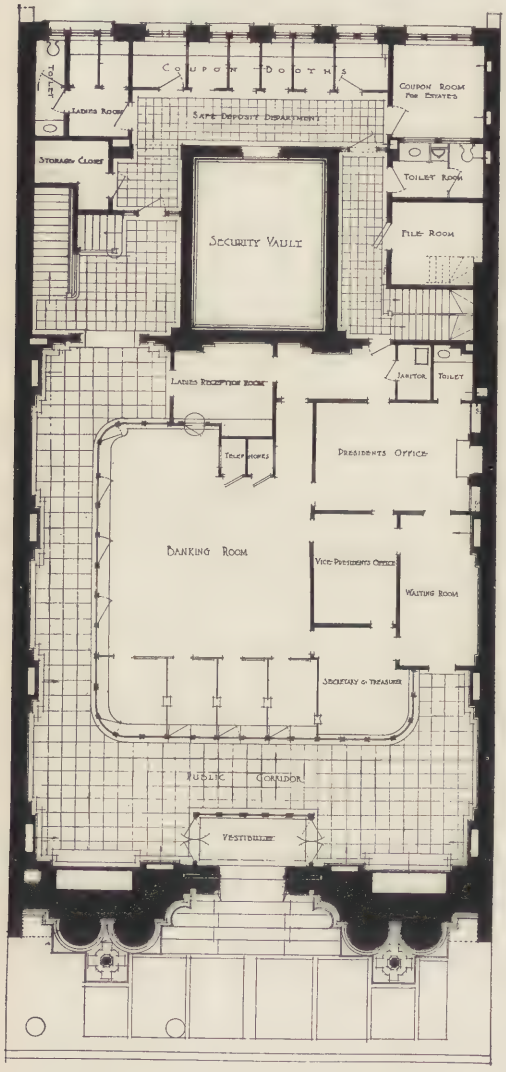


MAIN FLOOR PLAN

COLONIAL TRUST COMPANY.

Baltimore, Md. Ellicott & Emmart, Architects.

the ground and the other stripped to its steel skeleton. The experience of these banks convinced the bank-owners of Baltimore of the better protection afforded by low fireproof buildings, the consequence being that out of the twenty-four banking houses which have been

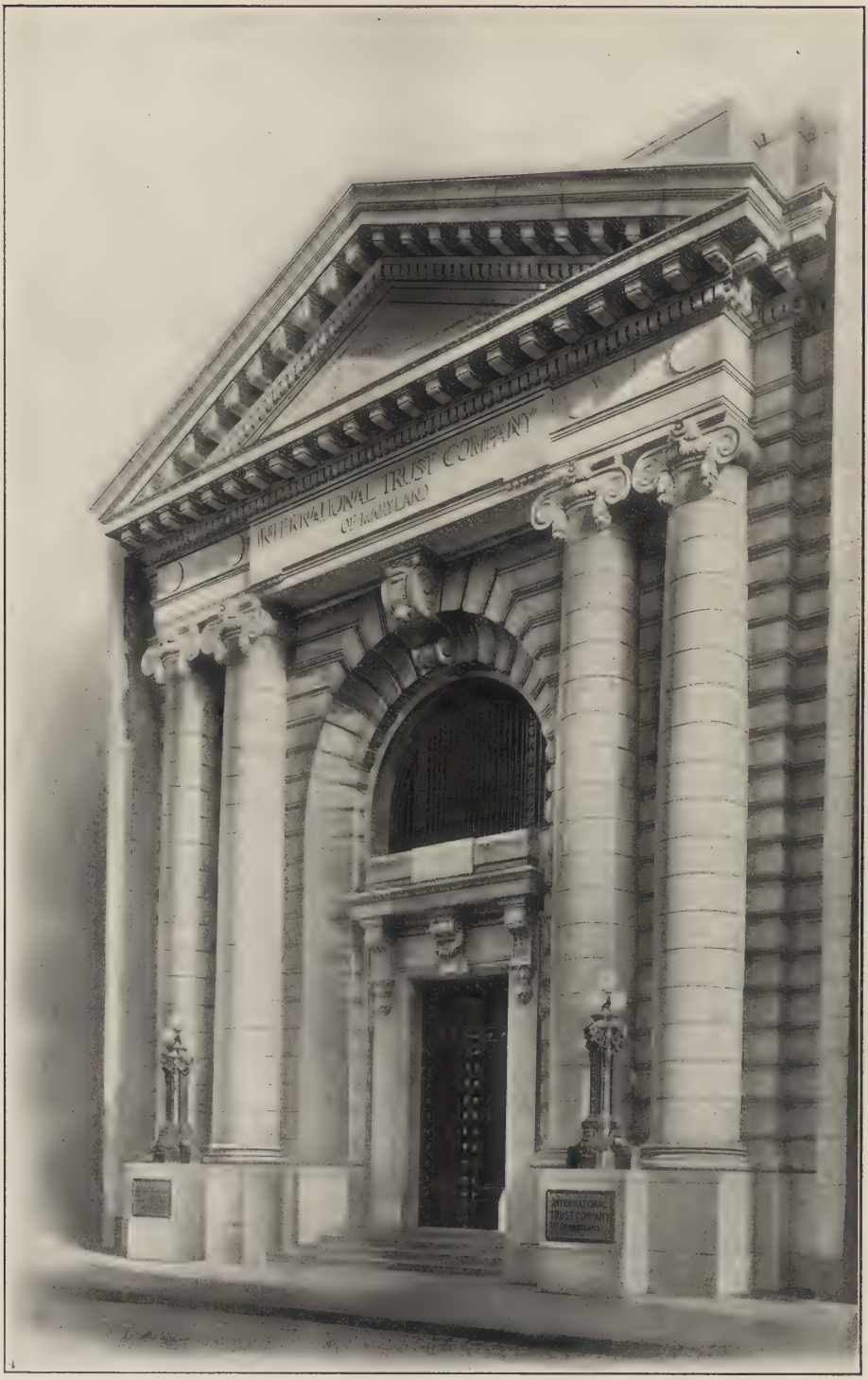


INTERNATIONAL TRUST COMPANY.
Baltimore, Md. Parker & Thomas, Architects.

erected in Baltimore during five years, only four rent any portion of their building, and no bank not already owning a sky-scraper has built one.

The bankers of Baltimore have discovered not only that low bank buildings are safer and architecturally more impressive, but they have also discovered that such buildings are more convenient. A bank does not need, like an insurance company, a large number of small offices, in which are transacted a vast mass of business detail. On the other hand it does need one large impressive and well-lighted apartment, in which the public business of the bank with its customers can be transacted; and it needs in addition a number of smaller rooms to be used as the private offices of its chief executive officials and as directors' rooms. These practical requirements are adapted peculiarly to a low building erected on an ample lot. It is difficult to light a spacious counting-room sufficiently without skylights, and it is not easy to plan a sky-scraper economically so that skylights are possible. It can be done by converting the well of the court into a spacious counting-room; but such an arrangement is economical only when the sky-scraper is erected on an extended site, and the interior court is consequently exceedingly large. An enterprise of such proportions which might be possible and profitable for the First National Bank in a city like Chicago would not be possible for the banks of a city like Baltimore. Consequently they had an additional inducement to erect a low building, the largest apartment in which could receive an abundant supply of good light from above. Such a room diminished the cost to the bank of artificial light, it saved the eyes of the clerks, and it was capable of dignified and effective architectural treatment.

The needs of the business of a bank consequently suggest the following plan, which may be regarded as typical for a bank building not more than one or two stories high. There must be a spacious entrance leading through a wide and handsome lobby in a very large room, around which the counters will be arranged in the most convenient manner. The ceiling of this room will run up to the roof of the building, and as many skylights as are necessary will give it the best possible means of illumination and ventilation. The private rooms needed for the transaction of the bank's busi-



INTERNATIONAL TRUST COMPANY.

Baltimore, Md. Parker & Thomas, Architects.

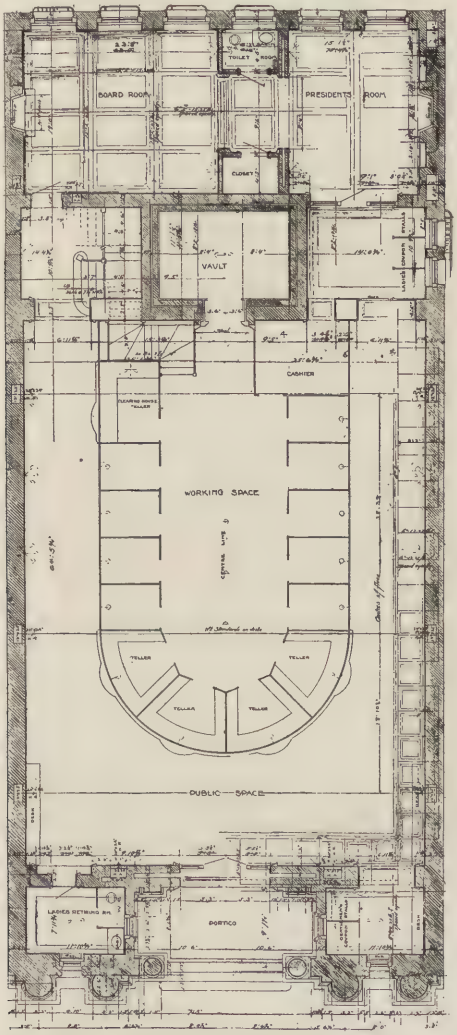
ness, such as the directors' room, the offices of the president and secretary, and the several special rooms needed for the accommodation of individual customers —all these smaller apartments can be situated on the outer rim of the building and can receive their light from ordinary windows. If there are many such rooms it is usually necessary to distribute them through two floors, and to make the second floor appear from the large counting-room as a gallery. A plan of this kind is convenient, economical, and permits of effective architectural treatment. But, of course, in fitting such a plan on a particular site many modifications are usually necessary. This much will depend upon the shape of the lot and on the number of streets upon which it fronts. The ideal site for a bank would contain frontages on three streets, so that the building would have unimpeded side lights from three directions, but as that is usually impossible the most practicable alternative would usually be a site so large that the bank could itself reserve enough room for spacious interior courts. Such an arrangement is costly, but in certain instances, in which the land is not too expensive, it pays, because of the extremely convenient interior arrangements which are thereby made possible, and because also of the greater impressiveness of the exterior effect.



INTERNATIONAL TRUST COMPANY.
Baltimore, Md. Parker & Thomas, Architects.

The only Baltimore bank building in which any such arrangement has been possible is that of the Savings Bank of Baltimore, of which the architects are Messrs. Parker & Thomas. In this in-

stance the architects have been enabled to design practically a detached building, in the form of an Ionic temple, the interior of which is so well lighted from above that the side window lights could be obscured by projection of the colonnade. There may be some objection on



NATIONAL UNION BANK OF MARYLAND.
Baldwin & Pennington, Architects.
Baltimore, Md.

the score of propriety to the use of an Ionic temple even for such an admirable purpose as that of a savings bank, but there can be no doubt of the popular effectiveness of such a design. There is nothing comparable to a huge colonnade for the impression it makes on the popular mind of architectural dignity, and the Savings Bank of Baltimore, which is one of the oldest and largest institutions of the kind in the country, had a peculiarly strong and effective motive for wishing to make a powerful impression on the public. With its 20,000 depositors and its assets of over $28,000,000, its directors naturally desired that its building should express not only security and strength, but institutional dignity; and the design of the architects with its massive marble columns and its huge scale is precisely adapted to inspire the people of Baltimore with awe and respect.

The best that a bank can usually do to obtain a maximum of street frontage is to situate its buildings on a corner. The majority of Baltimore banks are so situated, and the banks which are located on corners are usually designed in order to obtain, like other office buildings, a maximum of window space. Thus in the cases of the buildings of Brown & Sons, the National Mechanics' Bank, the National Bank of Baltimore, the German Bank, and the National Exchange Bank, all of which are situated on corners, the wall-space is not only pierced but eaten up by huge windows—windows which in some instances are so large, compared to the size of the site, as to make skylights unnecessary. Among the buildings situated on corners, those of the National Bank of Baltimore and the National Mechanics Bank are most successful. The architects of the first of these buildings have managed, in spite of the large arched windows on the longer façade, to retain enough wall-space to give a certain substantial strength to the design, and the two frontages, barring certain clumsiness of detail, are examples of dignified and appropriate street architecture. The two frontages of the National Mechanics' Bank are, however, better managed, both from the point of view of appearance and of convenience. The architect has used a colossal order engaged on the wall to frame the windows, and in this way he has obtained a maximum of light, while at the same time keeping his architectural design simple, consistent and



NATIONAL UNION BANK OF MARYLAND.

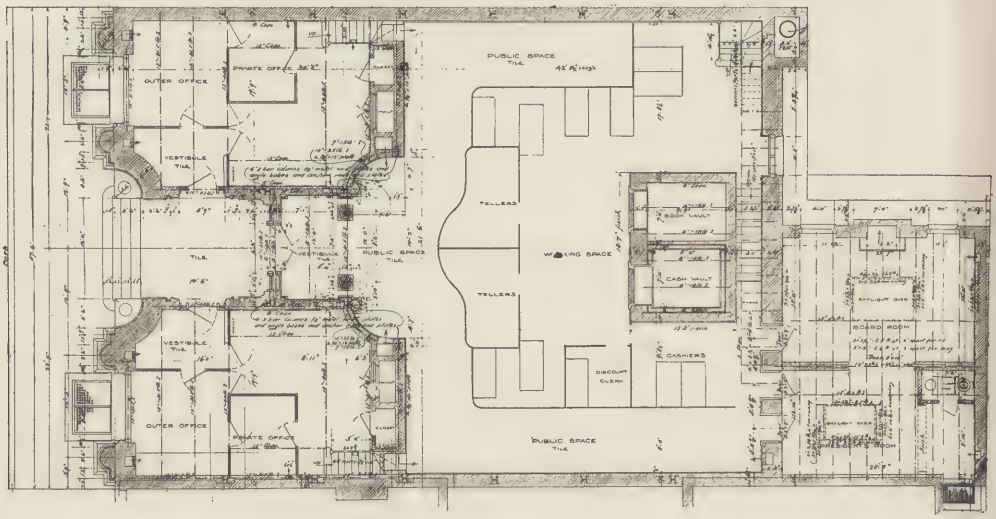
Baltimore, Md. Baldwin & Pennington, Architects.



NATIONAL UNION BANK OF MARYLAND—PRESIDENT'S ROOM.
Baltimore, Md. Baldwin & Pennington, Architects.

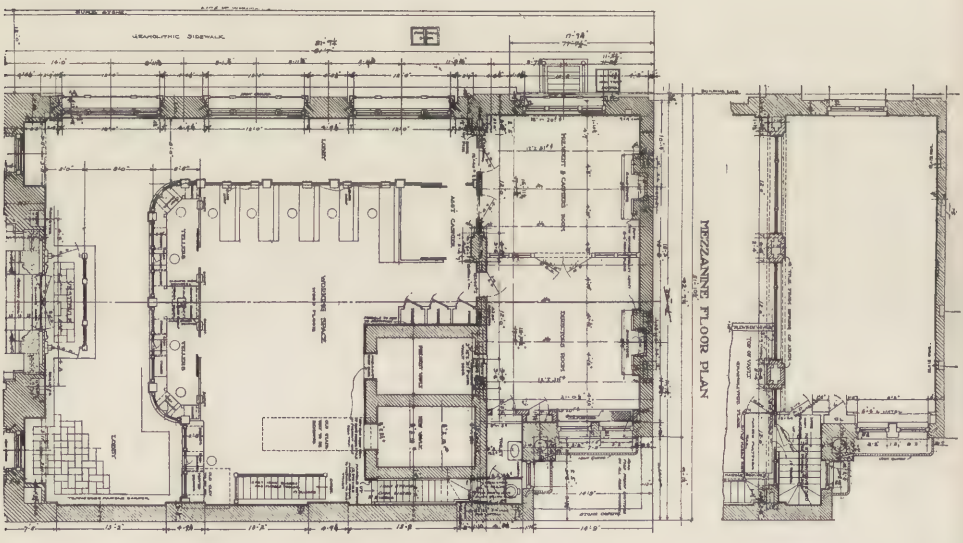


NATIONAL UNION BANK OF MARYLAND—LADIES' DEPARTMENT.
Baltimore, Md. Baldwin & Pennington, Architects.



NATIONAL BANK OF COMMERCE.

Baltimore, Md. Baldwin & Pennington, Architects.

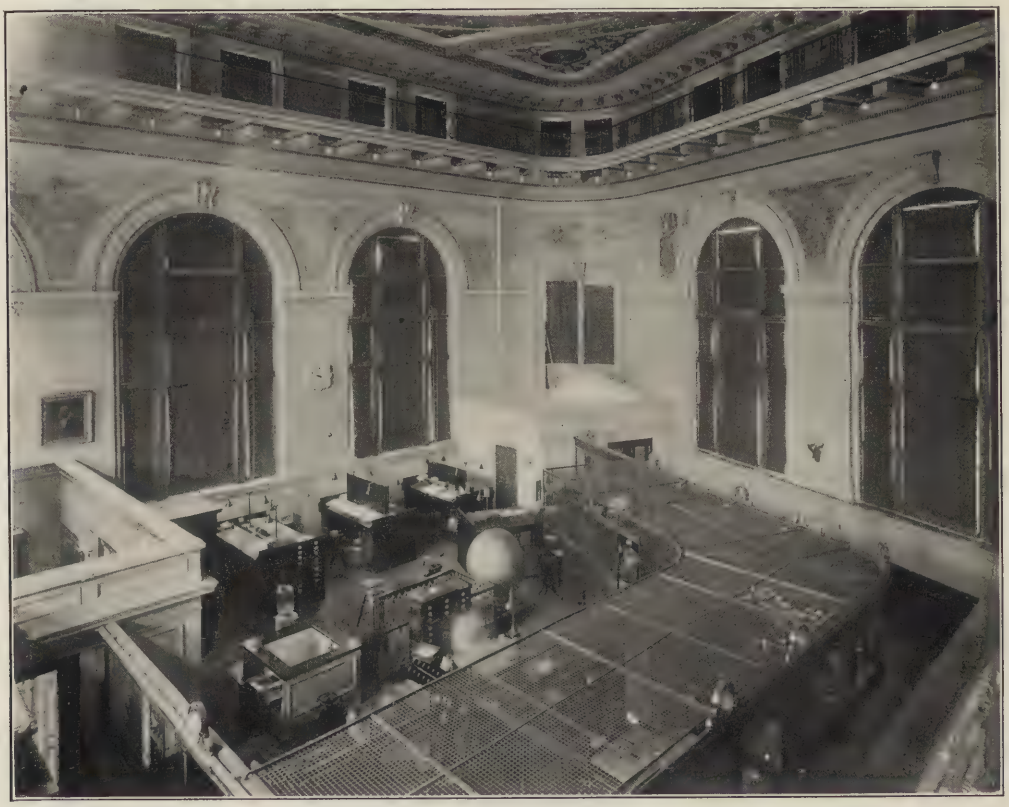


FARMERS' AND MERCHANTS' NATIONAL BANK.

Baltimore, Md. Baldwin & Pennington, Architecs.

strong. The idea is similar to that which obtains in the design of the Knickerbocker Trust Company in New York; but there are radical differences in detail between the New York and the Baltimore bulidings. The architects of the National Mechanics' Bank, Taylor & Knowles, are assuredly to be congratulated on their work.

The buildings of the National Union Bank and the International Trust Company are peculiar, in that they have frontages on only one street, and this limitation inevitably determined the character of the design. It has become universal to treat the façade of a bank building with only one frontage as a huge arch framed in by one or two pair of engaged columns and an entablature, and the façades of these two bank buildings are no exception to the rule. The problem being similar in each case, it is interesting to place the buildings side by side, and to observe the differences of treatment. The architect of the National Union Bank has had a somewhat wider lot; and he has used it to obtain more light for the rooms giving on the street. His columns are placed far apart, and in the intervening space two windows have been inserted on the first floor and two bull's-eyes on the second. But the light given by these apertures cannot amount to very much, and their intrusion has decidedly weakened the design. The whole effect of the frontage is as a consequence distinctly feeble, and its feebleness is rather intensified than relieved by the liberality with which decorative detail has been applied. The façade of the International Trust Co. is, on the other hand, far more compact and



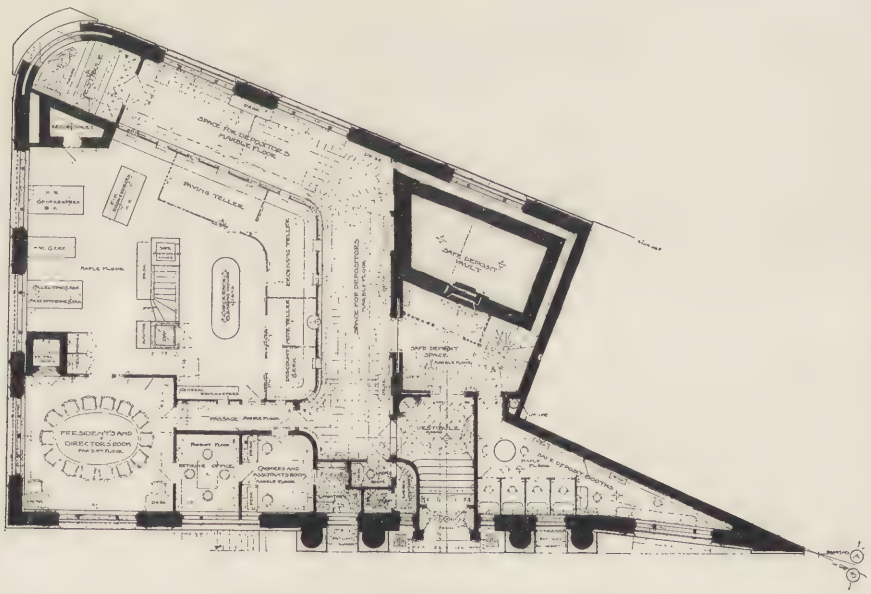
NATIONAL EXCHANGE BANK.

Baltimore, Md. Taylor & Knowles, Architects.



NATIONAL EXCHANGE BANK.

Baltimore, Md. Taylor & Knowles, Architects.



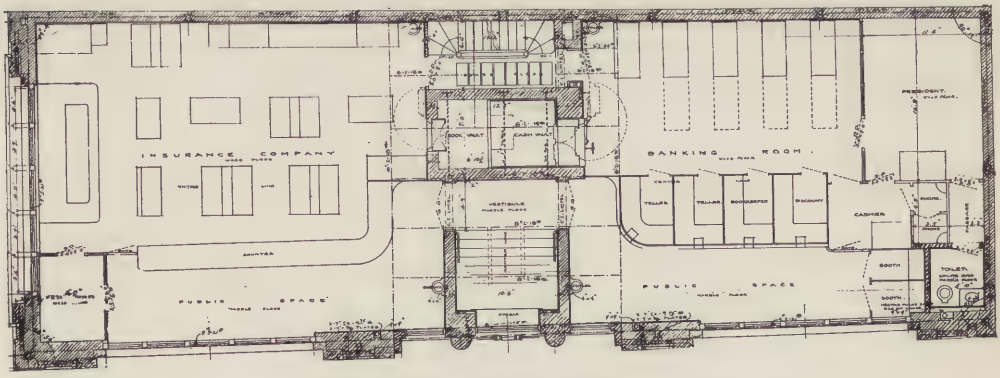
NATIONAL EXCHANGE BANK—PLAN.

Baltimore, Md. Taylor & Knowles, Architects.



GERMAN BANK OF BALTIMORE.

Baltimore, Md. Baldwin & Pennington, Architects.



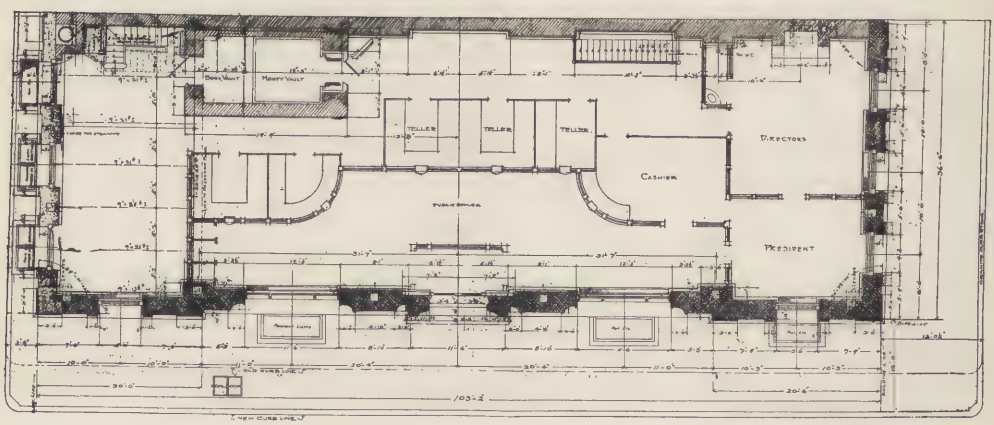
GERMAN BANK OF BALTIMORE—PLAN.

Baltimore, Md. Baldwin & Pennington, Architects.



NATIONAL BANK OF BALTIMORE.

Baltimore, Md. Baldwin & Pennington, Architects.



NATIONAL BANK OF BALTIMORE—PLAN.

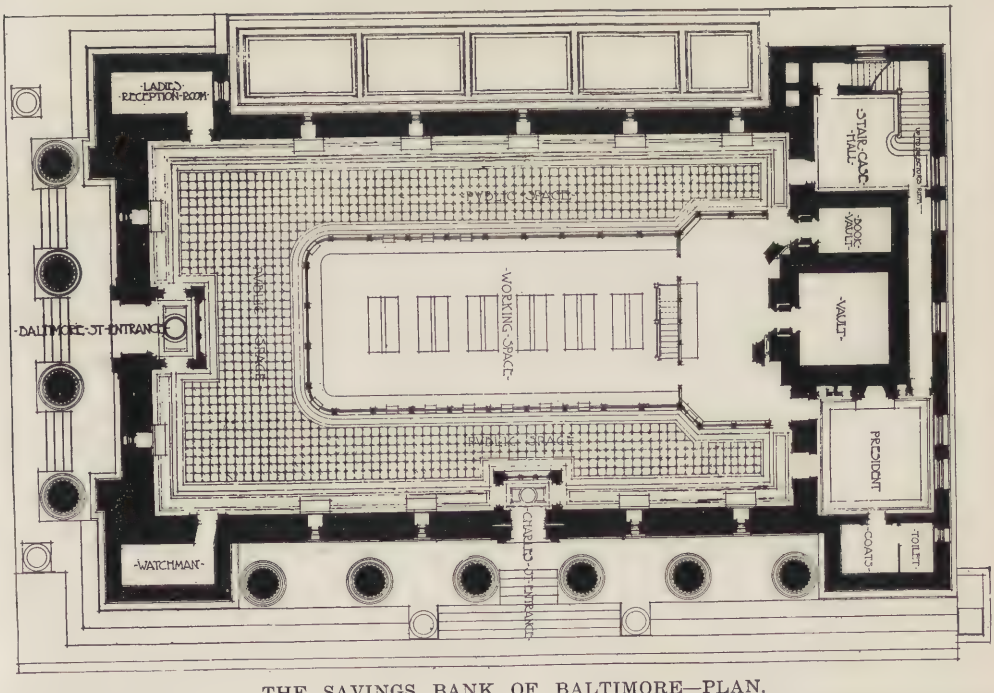
Baltimore, Md. Baldwin & Pennington, Architects.



THE SAVINGS BANK OF BALTIMORE.

Baltimore, Md. Parker & Thomas, Architects.

(From the Architects' Model.)



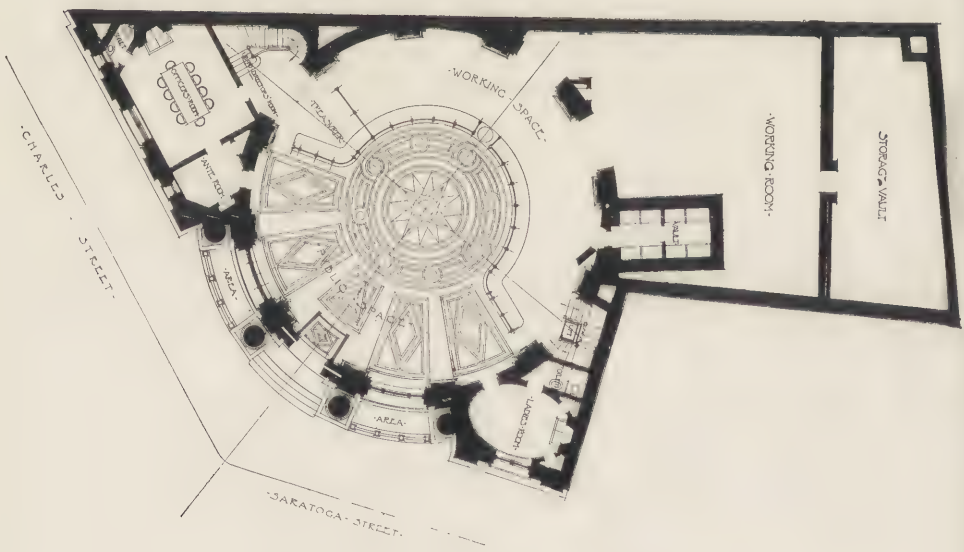
THE SAVINGS BANK OF BALTIMORE—PLAN.

Baltimore, Md. Parker & Thomas, Architects.



METROPOLITAN SAVINGS BANK.

Baltimore, Md. Parker & Thomas, Architects.



METROPOLITAN SAVINGS BANK—PLAN.

Baltimore, Md. Parker & Thomas, Architects.

far more emphatic. The decorative members are centered around a good strong arch with a deep reveal, and the effect is much more positive than it is in the case of the façade of the National Union Bank. Whatever may be thought of the desirability of sacrificing as much light as is necessarily sacrified by such frontages, the design of the façade of the International Trust Co. makes much more effective use of the architectural opportunities offered by the problem.

Two other of these Baltimore bank buildings demand special comment, because of certain peculiarities in their appearance. One of these is the habitation of Alexander Brown & Sons, which was erected before the fire and passed through it without being badly injured. In this instance the architect has departed from the usual practice of designing an architecturally pretentious building and has been content with the comparative modesty of two colonial façades,



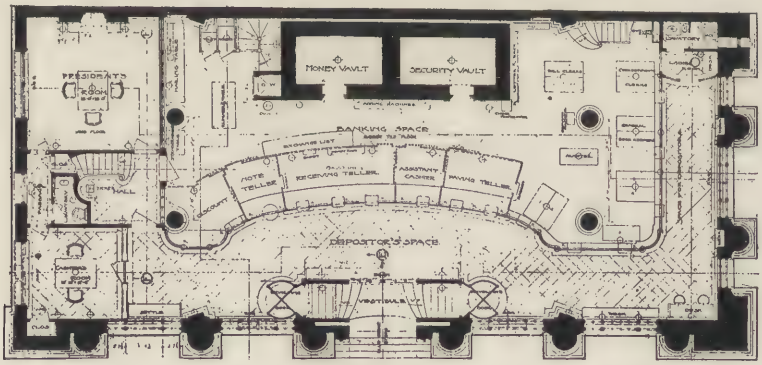
NATIONAL MECHANICS' BANK.

Baltimore, Md. Taylor & Knowles, Architects.



NATIONAL MECHANICS' BANK.

Baltimore, Md. Taylor & Knowles, Architects.



NATIONAL MECHANICS' BANK—PLAN.

Baltimore, Md. Taylor & Knowles, Architects.

and there was a certain propriety in this selection of the style, both because of the many colonial houses in Baltimore and because the bank which inhabited the building was owned by a private firm. It is natural that a firm of private bankers should refrain from pretending to be too much of an institution, and that they should prefer for their official domicile a building whose appearance was by way of being domestic. The idea of a colonial habitation for a private banking firm of

such long standing as Messrs. Brown & Sons was consequently excellent, and it is a pity that it was not carried out in the spirit of simplicity and discretion characteristic of colonial architecture at its best. The window openings are ineffectively distributed, and the chief decorative members of the design, viz.: the pilasters, are feebly executed. On the other hand the effect on the whole is so good that the critic may well wonder whether it is worth while for a bank which at bottom is a purely business enterprise, to spend very much money in trying to look like an institution.



NATIONAL MECHANICS' BANK—CEILING.

Baltimore, Md. Taylor & Knowles, Architects.

The other exception to the usual rule is the building of the Provident Savings Bank. This building, it may be explained, is the central office of a bank which has many branch offices in Baltimore and its vicinity. It is not the place to which the customers of the bank are obliged to come in order to transact their business; and it did not require to be very large or very ornate. On the other hand, inasmuch as it was the central repository for a number of branch offices, it was desirable that it should look secure, and the architects have certainly succeeded in imparting such an effect to the structure. The building looks like what it is, and what the depositors in the bank want it to be, viz.: a strong box. The huge ribs of masonry seem to be holding the box tightly together, and one gets the impression of a stability and strength which will endure forever, and which is divorced from anything superfluous and wasteful. One gets the impression, that is, of a business-like and economical stability, which is to be preferred to any other form of endurance.



THE WEST STREET BUILDING—VIEW FROM THE FOOT OF CORTLANDT ST.
West Street, New York City. Cass Gilbert, Architect.
(Photo by J. H. Symmons).

The West Street Building

New York City

We are all the time saying to one another, we people who believe that architecture is not a dead art, at least not an irredeemably dead art, that the skyscraper is "all right" as an architectural problem, only not as an architectural performance. The commercial skyscraper we know and disrespect. And this means not the utilitarian skyscraper. For the skyscraper is a foredoomed failure if it be designed on any other than utilitarian grounds. The moment the designer allows himself to take money out of his owner's pocket for his own glory, by stopping up needful lights, for example, with architectural features, by widening passages at the expense of rentable space, by making any sacrifice whatever of the baldly practical requirements, that moment he injures his work artistically and compromises or degrades himself, strictly as an artist. Of all buildings, the "impractical" skyscraper is the least excusable. For the whole reason of the erection is, as Paul Bourget well put it about the skyscrapers of Chicago, to utilize to the very utmost in every story of the climbing pile, "the bit of ground at the base." The architect who fails to do that, whatever else you may be moved to say about his work, fails utterly and fails irredeemably. He shows himself not only not an artist but not even an honest man. For what else can you say of a man who puts his hand into the pocket of the employer who trusts him to make the best investment, and takes therefrom money wherewith to build a monument to his own glory not only at the expense of the trustful owner, but to his loss and damage?

Surely there is no room for honest misapprehension on this score. It is quite true that the owner is, as a rule, very fairly qualified to take care of himself. To paraphrase Lincoln, you can fool one owner one time, but you cannot fool one owner twice or two owners once. As it was expressed by a Chicago architect who was asked what would happen to the Chicago architect who wasted room in office buildings as many a New York architect has done, "Why, the word would be passed and he would never have another to do." What one means by the commercial method of designing skyscrapers is that the commercial architect of commercial buildings saves himself the expense of thinking, and also incidentally office expenses, by transferring from his portfolios to his skyscraper some irrelevancy with which the skyscraper has nothing to do. The owner of a skyscraper is, as a rule, as willing to pay for beauty as for use. At least he is willing and anxious to have his building admired. It is true that he is not so quick to see that features which the commercial architect recommends to him as beautifications are really, in Ruskin's phrase, "monstrifications." It is the architect who has strictly to exclude historical irrelevancies from his mind when he is designing this aspiring novelty for which there is no historical precedent. "Hoc age," "Do this," must be particularly the motto of the architect of a skyscraper. When a designer "does this," with strict reference to itself, and, given that he is an artist, makes his skyscraper out of its own elements, he is sure of popular applause as well as of the approbation of the judicious.

It is not frequent for a designer of skyscrapers to attain this double success. But Mr. Cass Gilbert, having attained it once in the Broadway Chambers, has scored again with the West Street Building, where he had a larger opportunity. The former, with its rigid adherence to the conditions, met with such appreciation from the logical French mind, the Paris Exposition of 1900, that it is related that a diploma of honor, addressed to "M. Broadway Chambers" wandered about the postal conduits of the country until it was delivered at its intended destination months after the close of the Exposition. The columnar treatment which



THE WEST STREET BUILDING—REAR VIEW.

West Street, New York City. Cass Gilbert, Architect.

(Photo by J. H. Symmons).

has imposed itself upon most architects of the skyscraper, had not, up to 1900, been more logically and more artistically expounded than in the Broadway Chambers, with its rusticated stone basement, its rough brick shaft, and its capital of



THE WEST STREET BUILDING—CEDAR ST. ENTRANCE.
West Street, New York City. Cass Gilbert, Architect.
(Photo by J. H. Symmons).

vari-colored terra cotta. It would be rash to say that it has been more successfully expounded since.

All the same, a mere parallelopiped cannot be regarded as an artistic form. The mere "batter" that at once assures the eye of its stability, tends to secure that stability in fact, and corrects the optical illusion by which the upper stages of a mere parallelopiped seem to overhang the lower, is an artistic nuance difficult, no doubt, to be secured in effect in the steel frame construction. It is the chief among the many merits of the older part of the "Monadnock" in Chicago that the propylar effect of a batter is there effectively secured, and that in a flat-roofed building. But the instructed eye

demands that the three features of the tower which is the skyscraper shall be more effectively distinguished than they can be by mere variation of material or



THE WEST STREET BUILDING—WEST ST. ENTRANCE LOOKING TOWARDS THE ELEVATOR ENCLOSURE.

West Street, New York City. (Photo by J. H. Symmons). Cass Gilbert, Architect.

even of color within the strict parallelopipedal enclosing lines. The Aristotelian requirement in every work of art of a beginning, a middle and an end, is a requirement, when applied to a building, that the three parts should be more strongly emphasized and distinguished than can be managed within the periphery of four rectangular faces, or even within the periphery of a cylinder.

In the fact that its design allows for such a distinction is the West Street

Building an advance upon the Broadway Chambers. Sometimes, in a building of which the conditions seem to exclude a visible and crowning roof, the emphasis of the capital may be managed by an actual projection and overhang beyond the substructure, as notably, and very successfully in the tower, and especially in the crowning cornice of the tower of the Times Building in New York. But the result is more fortunate when the conditions, as in the West Street Building, admit of a visible roof as a crowning appendage to the upper stage. The appendage need by no means compromise the strict utilitarianism of the building. As. Mr. Louis Sullivan has pointed out in words, and as he and other architects have successfully exemplified in actual building, the top of an



THE WEST STREET BUILDING—THE ENTRANCE CORRIDOR, LOOKING TOWARDS ALBANY ST.

West Street, New York City. (Photo by J. H. Symmons). Cass Gilbert, Architect.

office building of many stories not only admits but invites subordinate and reduced apartments belonging to the administration of the building itself, which may properly amount to less than the area of one of the floors built and arranged for the tenancy, which is the primary reason of being of the whole Titanic erection. Janitors' quarters, for example, and the elevator heads and the tanks which, in commercial buildings commercially designed, are so often allowed simply to project above the roof line in masses unsightly when one is far enough up or far enough away to see them at all, unsightly because formless, chaotic and undesigned. Just as the servants' quarters in a huge hotel may properly be subordinated in total area to the guests' rooms, and as their subordinacy be emphasized, or even as the similar "offices" in a private mansion of pretension may be subordinate in the size of each and the aggregate area of all, to the guests' rooms in the one case, or the living rooms in the other, and still constitute, architecturally, the crowning feature of the building, so may the skyscraper's dependencies be emphatically treated.

It is in this treatment of the crown that the admirableness of Mr. Gilbert's latest skyscraper essentially consists. The base leaves the discriminating admirer distinctly cold. Of the shaft, such an admirer says of the architect, as Tennyson's "Northern Farmer" of the parson,

I thowt a said whot a owt to 'a said,

though to be sure this is immensely higher praise of a promiscuous skyscraper than of a promiscuous parochial sermon. But the upper section is distinctly "the thing," whether in a nearer or a more distant view, the thing which makes the beholder glad and grateful.

The triple division is very well managed, and the proportions of it agreeable —a base of three stories, or four counting in the transitional story with the base to which it belongs by its material and its treatment; a shaft of twelve, another transitional story, which may be counted as an "echinus" or rather as a "necking"; a capital of three stories included under the segmental arches, which form five bays on the shorter front and seven on the longer; and above, the rich cornice story and the parapet story, with the additional but subordinate story included in the inward-sloping roof. Such is the simple and obvious "lay out." But like most architectural successes of the same kind, note well, it is obvious only after it has been done.

The base is the least successfully and most conventionally treated member of the composition. The conventionality includes the common convention of an assumption that it really carries the superstructure as in a building of masonry. It is hard to blame an architect for doing what everybody does, even though one is prepared to maintain that he is following a multitude to do evil. And, in truth, it is difficult to make an effective triple division, with the columnar proportions to which the eye is so accustomed that it may be said to demand them, without making such an assumption. Only the lowest story of all is so separate in function that it can logically be treated separately. The purpose of making the base correspond with the capital is responsible, of course, in this case for the fiction that its four stories in granite carry the superincumbent edifice, insomuch that the reeding of the shafts that enclose and emphasize the steel posts in the central division is here omitted, instead of being continued, as in fact of course the steel posts themselves are continued to and below the ground. The assumption is that the skeleton frame superstructure in terra cotta rests upon and rises from a solid wall. One cannot accept a design in which that assumption has to be made as a complete solution of the problem, no matter how common or even universal is the assumption. Moreover, in a general view of the actual building, though not so strongly as in the photograph, the tall undivided openings of the basement have a look of weakness, from the lack of division and the lightness of the stress that is laid upon the connecting horizontal members within the opening which, if they were emphasized and brought forward, would enhance the apparent strength of the construction, and would also make more

plausible the assumption that the base we see really supports the superstructure. Note, in the photographs of the entrances, how the modelling of the arches and the treatment of the interstitial filling give this bay an aspect of strength and security which is lacking to the plain segmental bays alongside.

But, above the cornice of the fourth story, unfavorable criticism is reduced very nearly to silence. The reeding of the twelve-story shafts emphasizes instead of concealing the fact that they are mere envelopes and wrappages for a framed building. It suffices to give projection and relief without sufficing to darken the openings between, or to dissemble the fact that the twelve stories are composed of so many tiers of homogeneous units. The plainness of the piers at the angles increases in comparison their breadth and importance as enclosing features. For the effect of this reeding, look at the photograph of the rear from which it is omitted, and which, as to the shaft is "unaccommodated" steel frame, not architecturally treated at all. This elevation, though it is evidently expected to be hidden by buildings that will come to adjoin it, is very fairly presentable while it is exposed, in spite of the unfortunate and enforced asymmetry of the wings that flank the light-shaft. But compare it with the fronts that are expected to remain visible from top to bottom and see the effect of the treatment which has been applied to them. It is at once practical, logical and artistic.

But of course the crowning member, as we have said, is "the thing." Highly effective close at hand where only the perpendicular fronts can be seen, how much more effective it is from afar where the inward slope of the then visible roof admits of the introduction of the cupolated pinnacles. The detail is everywhere excellent in design and in scale. But this crowning member is particularly lucky. Whoso gets, with a shock of pleasure, his first glimpse of this roof from where the lower building is invisible, say from across Trinity churchyard, or from up or down the river, must feel it to be an inspiration. If of a critical turn of mind he must, as he sees the rich dormers and the rich pinnacles relieved against roof or sky, feel the architect to have been particularly well inspired in choosing a medieval prototype for his performance. Even the asymmetry of the eastern front as he sees it "lifting its far height above the purple crowd of humbler roofs," intolerable as it would have threatened to be in a tiara designed on classic lines, ceases to afflict him when it comes to remind him of the asymmetry of the counterparting and unequal spires of Amiens or of Chartres, with the effect of which the effect of this monumental crown of a modern monument of utility is not unworthy to be compared. It is only in Gothic that one attains, to recur to our Ruskin, "those misty masses of multitudinous pinnacle and diademed tower" which can glorify the summit even of a practical and prosaic New York skyscraper.



CHURCH S. MACLOU, ROUEN—FRONT VIEW.

Discovery of an Original Church Model by a Gothic Architect

I had been gathering material in the British Museum for an article on Mediæval Architects, their life and methods, to appear in the "Architectural Record," and had been pleased to come across considerable proof that models of different parts and even of the whole of a church were prepared by Gothic architects and submitted as projects for approval to the committee in charge, previous to construction.

Of course such work was costly, and took time, so that it was rarely done, as compared with the common use of drawings. I do not believe it was generally known among modern scholars that such things were ever made at that time. Certainly, no such models were known to exist. All the keener, though all the slenderer, was my hope of discovering one; and as I was then on my way to Paris, my good genius made me stop at Rouen, because it seemed as if there, if anywhere in France, a model might possibly exist. The old-fashioned town, with its Gothic masterpieces, Saint Ouen and Saint Maclou, the less harmonious but even more interesting cathedral, the Town Hall and the Tour de l'Horloge, the Palace of Jacques Coeur and other private houses, held great promises of old things preserved.

I went at once to M. de Beaurepaire, the State archivist, who not only has the reputation of being the most learned archivist in France, but had just completed an exhaustive study on the Gothic architects of Rouen for the review "Ami des Monuments Rouennais." He dashed my hopes, adding that if such a thing as an original Gothic model existed in Rouen he would certainly know of it.

From this interview I proceeded in chastened mood to the little archæological museum at the top of the hill, like any tourist. In one of its long galleries, where the light is subdued by filtering through XVIth century stained glass windows, I backed unexpectedly into a show case, turned around, and *my model stared me in the face,* standing fully three feet high. Best of all, it was a model of that greatest gem of late French Gothic, the church of Saint Maclou.

A glance was enough to prove that this was not one of the ordinary crude miniature copies of a late period from a monument already built, but an exquisite work of mediæval art. Reference to the catalogue and to various books showed that it had always been regarded as a copy made by some priest attached to the church of Saint Maclou, who lived, some said in the XVIth, some said in the XVIIth century, and whose labor of love lasted between ten and twenty years. M. de Beaurepaire, it seemed, had even supposed that he had found a document that proved its author to have been a priest named Housset in about the year 1680. Apparently no specialist in Gothic architecture had ever taken the trouble to verify these worthless legends by a study of the model itself.

Built up in *carton* or papier maché by a masterly hand, it presented in miniature every smallest detail of the church, all the tracery in windows and gables, all the statues in their niches, the relief decoration and pinnacles. As I stooped down to examine the interior through the open side-portal, I could look through stained glass windows in the further wall, with their figured compositions—a most unexpected touch of completeness. The artist's genius had even been thoroughly successful in overcoming the greatest of all difficulties, that of introducing a wealth of detail in so small an object without impairing the general effect and the outlines, or giving to the detail undue prominence. Even the minute statuettes under their canopies were sketched in with the same subtle plastic sense. In its way this model equaled in

delicacy and perfection of workmanship the best Gothic reliquaries in gold and enamel in church treasuries.

As soon as it had become clear to me, after the first glance, that this model could not be the work of any priest nor of any layman, but an architect—and a great artist at that—I passed to the second question which at once obtruded itself. Was the model a copy of the church of Saint Maclou, or was the church a copy of the model?

In default of sure documentary evidence, the two works themselves must furnish the answer. Of course, once the fact was conceded that this was an architect's model, the presumption was clearly that it antedated the church, because there would have been no sense in a copied model, nor is it known that such a thing was ever made by an architect.

Still more than such a presumption could be gained by a comparative study of church and model. Fortunately, Saint Maclou itself was right there in Rouen, and I could pass from model to church and back again.

I found the general scheme exactly the same both in plan and elevation; but the differences in every detail were many and striking. Most important were the following:

(1) Under the curiously original pentagonal porch that covered the entire width of the façade, the two extremities are occupied in the *model* by two large windows like those in the aisles: in the *church* these do not exist, and there is merely a blank wall.

(2) The bays of the side-aisles are covered, in the *model,* with a row of pyramidal roofs, rising acutely, as they do actually in several Norman churches of the XVth and XVIth centuries, such as Saint Ouen at Rouen and Saint Pierre at Dieppe: in the *church* the line of roof is unbroken, the usual continuous pent roof.

(3) The decorative system is quite different. The tracery of the rose windows, of the other windows, and of the gables in the *model,* is transitional from the geometric to the flamboyant, as one would expect in the years between 1400 and 1425, full of graceful curves and delicate designs; while in the church there is a much later and thoroughly flamboyant style, heavier, more abrupt and angular.

These are the main differences, aside from the more symmetrical hexagonal shape of the great tower-piers in the model; and its richer decoration of flying-buttresses and of sculpture.

These various differences are altogether too marked to be due to chance. In themselves they dispose of the theory that the model was copied from the church.

Intrinsic evidence, therefore, makes the model earlier in date. Let us see what was the history of the construction of Saint Maclou itself and whether it will throw any light on the age of the model.

A study of the original documents, especially of the accounts of the *Fabrique* of the church during the time of its construction, has given unexpected facts. Saint Maclou had become an extremely popular parish church early in the XVth century; so much so, that the structure, exceedingly old and small, was both unsuitable and insufficient. In 1414 the greatest Gothic architect of Normandy, Jehanson Salvart, who had charge of the work on the cathedral of Rouen, contracted, with the assistance of another prominent architect, Martin le Roux, to execute a piece of work for the treasurers of Saint Maclou, for the considerable sum of 300 gold pieces (écus). It could not have been for work on the old church, for it was not restored, nor on the new church, for it was not begun; nor could it have been for any such work as was paid by day's wages, but only for some such object as this very model. Unfortunately the contract leaves the object unspecified, so this remains a conjecture! At about this time came the English conquest of Normandy, which temporarily put a stop to most building enterprises; but toward 1432, with the help of the archbishop, work on the new church was actually started. As the accounts of the first four years are missing, we do not know what architect directed the beginnings. It was in process of construc-



MODEL OF CHURCH S. MACLOU, ROUEN—FRONT VIEW.

tion for nearly ninety years, being completed in 1517 and consecrated in 1521.

During the course of these hundred years it was natural that, while the general scheme of the model should have been adhered to, the various architects who had charge of the work and who made the working drawings and moulds for the details, should have followed the fashion of the hour in their decorative style instead of the fashion of the model. This, and a tendency to economize by eliminating certain features, such as the façade windows, or by reducing the decorative richness, as in the case of the buttresses, accounts for nearly all the differences. The main exception is the change in the form of the aisle roofs from the series of pyramids to the continuous pent roof. Here the explanation lies in the fact that the pyramidal roofs were a local Norman peculiarity, and that the architect Pierre Robin, who seems to have been called in from Paris in 1436-7 as advisory architect at the time when this lower part of the structure was in process of erection, was probably responsible for the change to the Parisian plan of covering.

The names of most of the master-architects in charge of the construction of Saint Maclou from 1436 to 1521 are known from the accounts. They were Oudin of Mantes (1436), Simon le Noir, Jean Chauvin, Ambroise Harel, Jacques le Roux, Jean le Boucher. To the last of these we owe the execution of the beautiful tall central spire, of which only the model gives us any idea, for the present spire is modern. The original was of wood covered with lead and largely gilt—one of the most exquisite in France. It was found necessary to tear it down at the close of the XVIIIth century.

In many other ways the model approximates more closely to the original church than the present edifice. The terrible storms that more than once made havoc with the delicate stone work depleted the decorative sculpture and ornamentation and it was never replaced. The main portal was originally not divided by a central support; and the famous wooden carved doors of Jean Goujou (?) were added in 1540 and do not appear as part of the scheme in the model.

The dimensions of the model are:

Height, 3′ 2.″ Length, 2′ 4.″ Width, 17¼.″

It was made in two sections. The body of the church is in one piece; the façade with its annexes was made separately, and the two parts fastened together. The interior is hollow and sustained by some piers, but they are formless and there is no attempt to shape the interior as it was intended to be. The model was only for the exterior. Perhaps this explains the extraordinary feeling of disappointment that one feels on entering the church itself—such a commonplace and unsymmetrical hall! It was not planned by the genius of the author of the model, Salvart (?), but by his commonplace successor.

The model was colored. The imitation tiling of the roof is black, the rest is in two shades of grey-brown, of which the lighter is applied to the backgrounds, while the outlines and the parts in relief are picked out in the darker tone. There are also traces, now quite faint, of the use of other colors in some details, especially gold, with an occasional use of blue and red. This must be in harmony with the church itself, because the accounts show the actual use of considerable color on the exterior, especially of gilding, which was applied, for instance, to the leading figures and spire of the tower.

The condition is remarkably good, considering the fragile nature of the material and the delicacy of the ornamentation. It must have been carefully preserved in the sacristy, treasury or some other annex of the church from the beginning until the close of the XVIIth century. In about 1680, however, a tragedy occurred which has left its mark. Attached to the church at that time as sacristan was a priest named Housset, who proved himself a most scandalous fellow and hurried the poor curate of the church into a premature grave by the financial complications which he caused. He was party to a law suit, in the course of which he testified that he



MODEL OF CHURCH S. MACLOU, ROUEN—SIDE VIEW.

had made a beautiful model of Saint Maclou, which he valued at between 3,000 and 4,000 gold pieces (*livres*), and which he had taken to Paris and deposited for a while in the Royal Cabinet des Antiques, with the view of its purchase by the King. This was frustrated in some way, perhaps, by the discovery that he had purloined the model from his church.

At all events, the knave's claim to have made the model appears to rest upon a number of minor restorations in very poor style, which he probably found it necessary to have made in order to put the model in presentable condition. There are, for instance, a few puppet-like statuettes, gilt and heavy, of Rococo effect, which swear at the rest. There are clumsy restorations of the balustrade, a new finial to the spire, etc. After the time of Housset the few new damages that occurred remained unrestored.

The model seems to have been returned to the church and its curate and to have remained in its possession, except for a peregrination that it made toward 1720 to the house of M. Lenormand, then curate of Saint Sever, who had previously been vicar of Saint Maclou. In 1835 the curate, Abbé Gresil, sold it for 800 francs to the city in order to get bread for his starving parishioners, and since that time it has belonged to the Museum.

To return now to my own connection with the model after I had thoroughly convinced myself of its character. On reaching Paris I hesitated to speak of it to any of the leading specialists in Gothic architecture, for fear of the ridicule they might cast on what seemed the preposterous claim I wished to make for it. I found that Camille Enlart, director of the Trocadero Museum, author of the recent authoritative manual on the history of French art, and considered a special authority on Gothic architecture, had within a few weeks published a volume on Rouen as an art city. To my amazement he mentioned the model only casually and entirely failed to understand it.

I began to doubt myself. Perhaps it *was* a copy! I went to the veteran professor of French architecture at the Ecole des Beaux Arts, M. Boeswillwald: he denied that any model by a Gothic architect existed in France. Finally, the recognized leader of all Gothic students, the charming M. de Lasteyrie, while still sceptical, volunteered to introduce me at a meeting of the *Société des Antiquaires de France,* in the Louvre, should I care to present the matter. Thanks to the fine large photographs I then had made, I was able to convince at the meeting not only M. de Lasteyrie, but the rest of the specialists, such as M. Lefevre-Pontalis, that the model was what I claimed, a unique relic, an unequaled direct product of the brain and hand of one of the foremost Gothic architects. The seal of this approval was the request to publish the model in the Monuments Piot, the organ of the French Institute.

What also pleased me was the verdict of that veteran architect and writer, Auguste Choisy, whom we all know for his authoritative folios on Roman and Byzantine construction and for his general scientific history of architecture. He told me that he considered the discovery of the model epoch-making because it furnished the beginning of a sure basis for a study of the geometrical ratios that underlie the æsthetics of French Gothic. The buildings themselves, so largely renovated and so subject in their construction to the caprices of the commoner run of architects, are far less pure as a source. This study I expect to make on my next visit to France.

I will also confess to a very human weakness. Some years ago the same Enlart, whom I have just mentioned, had tried to deprive me of the credit of discovering the series of delightful Cistercian monasteries in Central Italy, which prove that the early Gothic style had been first brought into the peninsula by the French Burgundian monks some forty or fifty years before any one had supposed that any Gothic existed in Italy. I could fancy how bored he must now feel to have this same American discover something that had lain for years under his eyes unrecognized in a city of which he had just written the artistic history. I noticed that he studiously absented himself from this particular meeting of the Antiquaires de France!

A. L. Frothingham.

"Civic Improvements"

A Reply

In a discussion of "Civic Improvements," with "the case of New York" as his text, Mr. Herbert Croly began a recent article in this magazine with these words: "The sincere friends of the improvement of our American cities in convenience and appearance should not disguise from themselves that the movement is not making as much practical headway as it should. * * * Improvements in public art and architecture have created a great deal of interest and enthusiasm as long as they remained on paper, but as soon as it was attempted to transmute the paper into steel and stone, both interest and enthusiasm have very much diminished. Either nothing at all has been accomplished or else only half measures have been adopted. The movement has not had the momentum to override the first practical obstacles which stood in its path." If this did not overstate the case, the condition would be a very disheartening one, and one which we Americans would do well to face as quickly as possible. I believe that it does overstate the case.

Mr. Croly, admitting the considerable measure of success in Washington, finds this "largely owing to the fact that the influence of President Roosevelt has been consistently used on the right side." It does not seem to him, therefore, to be a significant example. He recognizes "a certain amount of progress" in Cleveland and other cities; but "on the whole" he holds to his opinion. He cites in illustration the failure of Baltimore and San Francisco to rise to the opportunities that the fires afforded; and describing the ineffectiveness, even in promise, of the report issued last winter by the City Improvement Commission of New York, speaks of that as "perhaps the worst failure of all." It may be replied that the cases of Baltimore, San Francisco and New York, are no more typical, and are no fairer examples, than is the success in Washington, and that if the latter proves nothing the former do not.

In Baltimore no city-plan that had to do with the street arrangement of the business section had been prepared when suddenly a fire devastated a large portion of that section. In bewildered recognition that there was possible a better street plotting than there had been before, and that it was a need of Baltimore, public opinion supported the mayor in his immediate appointment of a commission to plan for the rebuilding of the city on more modern lines. But his appointees were local business men. They grappled with their problem conscientiously, but they never had made a study of the science of city planning and, goaded by the insistent cry for haste, could hurriedly devise no better scheme than the widening of certain of the streets. As far as their recommendations went, they were carried out to the letter. Ten and a half million dollars was put at the disposal of the Commission by the stricken city, and in the following year popular vote authorized by a large majority an issue of thirteen million dollars more, in bonds, for further civic improvement—suburban development, additional parks and sewers. If Baltimore failed to realize its full opportunity, it was not because the actual accomplishment fell short of the local ideals; it was because those ideals were not as high as they are to-day. Baltimore was unprepared, but to the utmost limit she made "the practical headway" that her advisors suggested to her.

For San Francisco, when calamity came upon the city, there was in readiness a plan magnificently ambitious in scope and wonderfully beautiful in detail. But it was not yet in the hearts of the people. Published in book form with an elaborateness designed to convince and to appeal to the citizens' loyalty, as the opening gun in a campaign of education, the books had no chance to fulfill their mission. The writer happened to be in San Francisco five days before the earthquake, and saw the Burnham reports stacked high in a down town business

building awaiting distribution. That building was one of the first to go in the fire. He has not heard whether the books were sent out before the catastrophe, but if they were, they obviously had no time to create that "interest and enthusiasm" which is described as diminishing when put to test. Yet, in spite of this condition, the plans almost won out and in some details they actually are to be put into execution.

As to "the case of New York" which Mr. Croly uses as the secondary title of his article—so thoroughly does he go into it, accepting the city as an example of others—his argument may be taken up with more detail. The City Improvement Commission, he notes, "was, in its way, an official recognition of the fact that New York ought to be a better looking, a more convenient city, and that its authorities had decided to make an earnest effort in that direction." Its appointment was, therefore, regarded, he says, as a substantial triumph for civic art. A year after its appointment, the commission brought in a "Preliminary Report"—moderate, tentative, experimental, recommending nothing. This fell flat.

But is it any wonder, and what is to blame except the Report itself? In big, rushing, practical New York, a small group of citizens brought out, in paper covers, a report which practically said, "Excuse us; we don't mean really to suggest this; but would it not be nice if this and the other big and costly improvement could sometime be made in our city? But don't, please, jump on us; we'll tell you next year, or the year after, what we do mean." They were taken at their word. Nobody criticized. The rush of life went past them with hardly a sidelong glance or smile. And when, a few weeks ago, the final report did come out and was found to repeat most of the early, tentative suggestions—very reasonable and good ones they were—a few gave to it respectful hearing and discussion, but most found it a twice-told tale—a thing which there is not time for in New York. The Commission, in the city where, above all others, public opinion has to be shocked to be aroused, had spent its powder in a salute. It had made a fatal tactical mistake.

Even that is not the whole story. When Mr. Croly says that the failure was due "not merely to the character of the commission," he admits that it was due in part to that. The members were all competent and public-sipirted; but they were local critics; and prophets to be effective must come from without.

In any case, Mr. Croly thinks, the New York Report must have failed of securing notable results. "The most important cause" of failure, he states, was the lack of the supporting public opinion; but even with that there was an insurmountable obstacle to the realization of fine dreams in "the financial condition of the city." This, he explains, "is peculiar." Hence even this condition is not as typical as later on he suggests.

Without going into his exposition of the local financial condition, we may take up the possible remedies which he considers. These are a couple of constitutional amendments. One would exclude from reckoning in that municipal debt upon which the constitution places a limit the money expended in making those elaborate street changes advocated in a City Plan Report; the other would permit the city to condemn not only land actually necessary for a new street, but immediately adjoining property as well, in order that after the improvements are effected the city, by the resale of this adjoining property at the enhanced value given by the improvements, might recoup the cost of making them. This is the device familiarly in use in transforming cities in South America and in Europe. Such amendments, he is sure, would be most difficult to secure: "Public opinion would want to be very much more convinced than it is that the municipal officials are incorruptible and competent. * * * As long as our municipal governments are untrustworthy, public opinion will be loth to sanction any considerable increase in their legal powers; and as long as such increase in legal powers remains unsanctioned, the vision of a beautified and glorified future for our larger American cities must remain, to a large extent, impracticable." Even smaller

cities, he adds, to accomplish results, must obtain "municipal governments like that of Galveston."

It appears that Mr. Croly's article, which is most interesting and suggestive in many of its details, not only finds civic improvement falling in actual achievement far behind the standard which is set by the considerable amount of writing on the subject, but that it pictures a long and hard road of administrative reform which must be traveled before the improvements really can "arrive." This conclusion is so opposed to popular opinion as to challenge inquiry.

Of the cities mentioned in the article, Washington, Baltimore, San Francisco and New York, the first, since he objects, may be excused as a witness for the defense. The testimony of the second and third, on cross examination, seems not to have helped his case. To the fourth we may make objection on the ground that its conditions, as he confesses, are peculiar, and hence it is no better qualified to bear witness than is the first. So much for those cities. The defense may take its turn.

Public opinion would be loth to give to city governments, Mr. Croly believes, any of the powers suggested in the constitutional amendments that he describes as necessary for large achievements. The State of Ohio does give to Ohio cities, by sections ten and twelve of the Municipal Code Law, precisely the authority he recommends, viz., permission to buy more land than is actually needed for an improvement, with power to resell it after the improvement is made. Pennsylvania has just conferred precisely similar powers upon the cities of that State. In Connecticut in the spring a bill was enacted that gave these powers to the Commission on City Plan of Hartford. There is no question that civic improvements would be furthered by progress in municipal reform, but even such important increase in the legal powers of municipal officials as Mr. Croly imagined for an ideally trustworthy administration has not waited for administrations to become better than they are. That is a proof of how earnestly public opinion has desired extensive civic improvements.

As to actual achievements, how long is it since men began to think of making American cities beautiful? Mr. Croly speaks of "the past seven or eight years" as the time in which "an enormous deal has been written about this subject," and he is not likely to have weakened his argument by understating the period. Let us accept his figures. What are seven or eight years in the life of a city? How short a period is that in which to educate people to a wish for civic beauty, to make them believe in its possibility for their own city, to overcome the inertia of a statu quo, to sweep aside the obstacles of the double fear of a higher tax rate and of the dishonest use of the money if it were appropriated! Must it not take in a commercial age a lot of writing and speaking and organizing to awaken these new aspirations in the minds—not of the few, but of the many, to overcome misgivings and prejudices, to rouse public opinion to the point of a "divine discontent" that cries "forward" even at possible self sacrifice? Seven or eight years for all this, and the taunt that achievements are not yet on a par with visions!

What, indeed, has been done? We are not to speak of the success in Washington, where comprehensive modern city planning was first undertaken in America. Well, Harrisburg followed. Five thousand dollars was provided by private subscription to secure a plan, then private pockets furnished five thousand dollars more to put the plan before the people, and the people—without the aid of a political machine—authorized a million dollar bond issue for carrying out the plans in such a vote that only three precincts in the whole city gave adverse majorities, and of these the most formidable was less than a hundred. Cleveland meanwhile was beginning to dream of that group plan for the public buildings that now, involving an expenditure of thirteen millions of dollars, has taken visible shape and is making the city famous.

It was at this time, too, that Springfield, Mass., first began to think seriously of buying back some of the river front that in the old days had been sold to the

railroads. The plan was to extend Court Square to the river's edge, but it was found that even so modest an accomplishment would take a hundred thousand dollars. A movement was started; it spread among all classes of citizens; less than fifty persons gave over $100 each, and the rest was made up of small contributions. On the date set for the completion of the fund it was found to have passed the $100,000 mark by $1,400. So did achievement keep pace with the vision. Now measures have been taken in Springfield to buy back two miles of river frontage, and to have a civic center at Court Square. Two citizens have given $50,000 each, a dozen have given an average of $15,000 apiece and one has given a million dollars. It is a pity to write a financial column when one is trying to picture the sincerity of civic aspiration, but figures talk.

Philadelphia is counted conservative, but of the great Fairmount Parkway, which the city is cutting in a straight swath from the City Hall to the Park, any "Haussmannized" city of Europe might be proud. It is an achievement that has followed the writing about it. Now other plans are being written up, and are as likely to be executed. Or, to go far West, a city plan report was obtained a year ago by Oakland, Cal. In January the matter was put to the people's vote—should they authorize the expenditure that was proposed? The total affirmative vote was five to one, and there were whole precincts in which the negative votes were in a single figure.

So one might go on from point to point in the United States, to show how in earnest the people are as regards this matter of civic improvement, and how achievement follows their earnestness—as it must in a democracy. There are four distinct steps of progression. First, there must come the talking and writing on the general theme; then the specific application of the general principles to the case in hand—the answering of the query, which itself is so significant of interest, "What can *we* do to make *our* town better?" This answered, the third step is the financing of the project; and last of all comes its actual execution. It is seven or eight years, we are told, since civic improvement began to be a good deal written and talked about; and the fourth step is not yet as conspicuous as the first! But the cities that were the earliest to take the first step are now at the fourth; those which came next are at the third. There is hardly any community where the first step has not now been taken, and the number that have taken the second—going to expense to secure professional advice—is admittedly very large.

The importance of that second step should not be overlooked. Of itself a civic improvement victory, it ought not to be dismissed as meaning only another batch of writing and theorizing to be instantly disregarded in the cases where "practical" results are still invisible. Is there not bright promise when a community, indifferent previously to the local possibilities of civic beauty, becomes so aroused that it authorizes its officials to appropriate five hundred, or a thousand, or five thousand, or ten or twenty-five thousand dollars from the public treasury, or raises this sum by private subscriptions, to secure such plans? Architecturally speaking, the action is equivalent to that of the individual who pays for a set of plans and specifications. At the moment his house is on paper only, but in nine cases out of ten he is going to build. And this is the position to-day in something like a score of cities and towns—such as Detroit, Columbus, Los Angeles, Denver, Greenville and Columbia, S. C.; Watertown, N. Y.; Cincinnati, Honolulu, Buffalo, Colorado Springs, St. Paul, Chicago, St. Louis, Boston, Brookline, Pittsburg, Portland, Indianapolis—not to repeat any of those named before. These cities have progressed from the first step to the second; in about half of them negotiations for the third are pending; in three or four years they will be taking the fourth.

The wonder must not be at the paucity of the achievement, but that in so short a time and against such serious obstacles so much could have been actually done.

Charles Mulford Robinson.

Baron Haussmann and the Topographical Transformation of Paris Under Napoleon III.

INTRODUCTION.

The topographical evolution of any city, must be, in the main, fortuitous. Conditions of site, necessities of commerce, methods of transportation, massing of population are the forces, which in general, determine the plan. Only occasionally is it possible to foresee what will be required in the long run, and to design an ensemble which will do its work properly. This was done in the case of certain cities of the Alexandrian and Roman empires and notably, in the installation of our own beautiful city of Washington.

To the general proposition that a city builds itself Paris is not altogether an exception. The town owes its origin and success to accident of place and commercial requirement. Until the middle of the seventeenth century it yielded to all the conditioning necessities which governed the growth of medieval cities. At this moment, however, the plan of the city fell into the hands of Louis XIV. and his Académie de l'Architecture; people who knew their Paris well, who remembered her past, and could foresee her future. They understood what topographical and commercial conditions would ultimately require. More dominant still was their appreciation of the fact that their city was the home of a cultivated people who would in the end demand most perfect civic surroundings. They drew the lines of Paris in the open country, through farms and gardens. The city filled out to the large general scheme, and public opinion insisted upon its preservation.

Finally, at a moment of culmination in the middle of the nineteenth century, when modern civilization came to its flower, and it appeared immediately necessary to provide for new and powerful forces centering in civic life; two men advanced with extraordinary qualifications for solving the problems presented. One was a monarch, self-imposed, to be sure, but still resting on the will of the people; broad-minded and humanitarian in his way; with perfect understanding of the complicated conditions confronting him. The other was a man of genius, who responded to his vast opportunity in a manner which was, at the same time, sympathetic, deliberate and resolute. Haussmann found himself standing with Napoleon III at precisely the moment which the people of the seventeenth century had foreseen and provided for. He found the city magnificently blocked out, and finished the task of transformation brilliantly; with a delicate appreciation of conditions, which included profound respect for the work of his predecessors.

HISTORICAL.

Paris first appears in history as a little cluster of huts on a group of islands in the Seine near the point where the waters of many branches converge in the main stream. The savage Celts and Gauls lived along the water-courses, which in the flat French country furnished easy channels for their primitive inter-communication. The boatmen of the Seine, Caesar's Parisii, found in the little group of islands a safe and convenient entrepôt, and during the period of Roman domination, developed an interesting organization, the *Nautae Parisiaci,* which became in the middle ages the *Marchands de l'Eau,* and, in the end, the municipality of Paris. They left their symbolic ship on the civic seal. The Paris of the Romans was a considerable city which they called Lutitia; a name based probably on the Greek *leukós,* white; and doubtless suggested by the beautiful white stone of the region which, then as now, was the facile material of construction. The White City has always found its center on the little island where the Parisii planted it.

The bit of country in which Paris was placed was most unprepossessing; a shallow basin, composed chiefly of marshes, with a quiet river winding through, and bounded by a circle of low limestone hills. Many similar localities may be found in the central tertiary plateau of France. London and Berlin are situated in the same sort of country. Compare the monotonous surroundings of these cities with the brilliant bit of broken territory in which New York is placed.

Paris has, however, one advantage over other great cities, in the fine white limestone which underlies the soil for miles in every direction; much of it, like the *lias* and *cliquarts* of which Nôtre Dame is built, taken from under the foundations of the city itself. Such architectural delicacies as the Parisians delight in, can only be executed in limestones of the finest quality and of these Lutèce has abundance.



FIG. 1. SCHEMATIC PLAN OF ROMAN PARIS.

THE GRANDE CROISÉE.

The cluster of islands in the Seine were not only a convenient haven and exchange for the *Nautae Parisiaci*; it also gave passage to the main Gallo-Roman road which came up from Orleans (Genabum), and went on through Senlis (Silvanectes) on the east and Beauvais (Bellovaci) on the west to Belgium and Britain. Through the site of the city it followed the line of the Rue Saint-Jacques and the Rue Saint-Denis. To the north of the Seine (the Rive Droite) there was formed quite early another road roughly parallel to the river, following in the main, the present Rue Saint-Honoré and Rue Saint-Antoine. These two currents have always been the chief lines of traffic in the city and constitute the *Grande Croisée*, as it is called

in the language of Parisian topography. The rectification of the *Grande Croisée* seems to have been considered by the architects of the seventeenth century, and was the primary concern of Haussmann in his transformation of the city.

THE ENCEINTE OF PHILIPPE-AUGUSTE

Paris has always been obliged to bear in mind the possibility of invasion. This, with the constant growth of population, has led to the construction of a series of

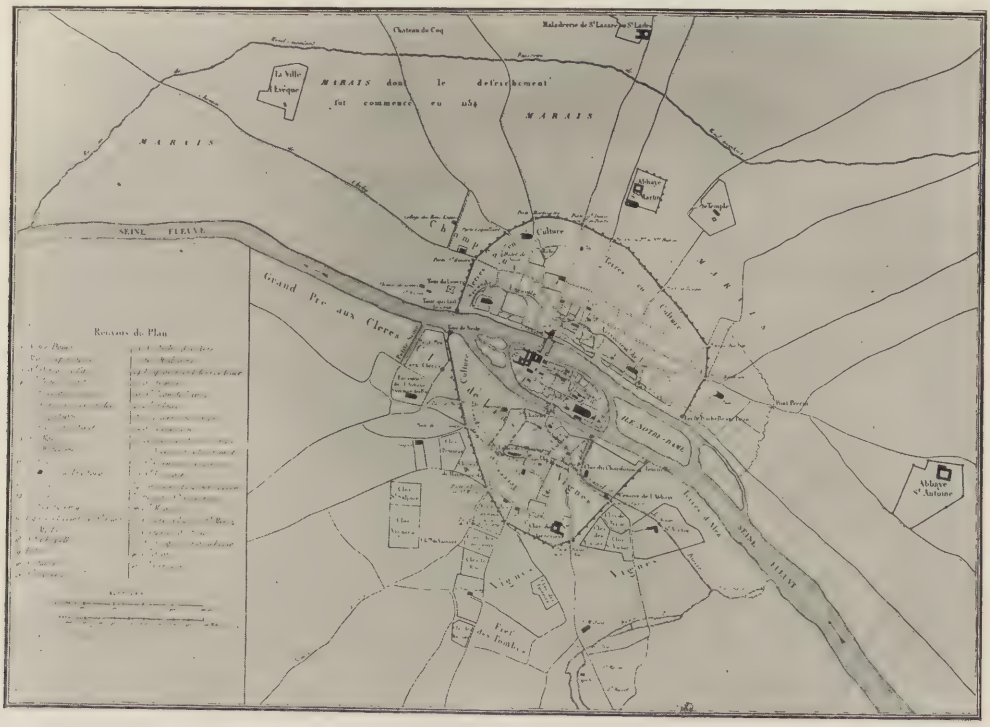


FIG. 2. SCHEMATIC PLAN SHOWING ENCEINTE' OF PHILIPPE-AUGUSTE.

circumvallations or *enceintes* which have had a dominant influence upon the plan of the city.

The first *enceinte* was a simple wall built in the fourth century about the largest island, the Cité, which was connected with the mainland by two bridges, the Grand-Pont on the site of the present Pont-au-Change and the Petit-Pont on the site of the present bridge of that name. The outer defenses of these bridges developed into the Grand and Petit Chatelet. During the invasion of the Normans in 885 the population of the city was so far depleted that it was contained within this walled island. But the vigorous little town set at the crossing of the finest waterway and the most important road in western Europe could not be contained within such narrow limits; and the greater city growing up on both sides of the Seine could not remain without protection. Philippe-Auguste (King 1180-1223) the first of the great trio of public spirited monarchs who have made the city of Paris, the others being Louis XIV and Napoleon III, grasped the situation perfectly. Before leaving for the third crusade in 1190, he ordered the construction of a fine wall of circumvallation which is the first of the Parisian *enceintes* to leave a permanent impression upon the plan of the city. On the northern side all traces have been obliterated, but on the southern side (Rive Gauche) the streets which replaced the moat still exist. Two of them, the Rue des Fossés Saint-Bernard

and the Rue des Fossés Saint-Jacques reveal their origin in their names. Outside the northern wall, and in contact with it near its point of connection with the river, the clever King built his fortress of the Louvre. It was always the endeavor of the Capetians so to place themselves that they might be in and out of Paris at the same moment. Enemies might appear at any time within or without. The city of Philippe-Auguste lay in three divisions, all north of the river was the *Ville,* the island was *Université.*

Gothic Paris was a beautiful city. Gray Nôtre Dame was then fresh from the quarries, a creamy white. The royal palace stood on the site of the present Palais de Justice, its gardens extending westerly to the end of the island. In fine weather Saint-Louis held his *Lit de Justice* under an oak. Much of the territory was occupied by the great clerical and royal establishments with their gardens, all within enclosures, so that the common people were obliged to shift as they might for their homes and places of business. The natural result of this was



FIG. 3. SCHEMATIC PLAN SHOWING THE ENCEINTES OF PHILIPPE-AUGUSTE AND CHARLES V.



FIG. 4. PLAN OF GEORGES BRAUN, CALLED "DES TROIS PERSONNAGES" (1530), TIME OF FRANÇOIS I.

crooked streets, bridges covered with buildings, and that wild, fortuitous beauty which is so valuable now in the few old towns where it still exists. Much of this Haussmann swept away, not relentlessly, but with keen regret, and a fine appreciation of its charm. The broad, healthy, open splendor which he

of France afterwards, might be able to acquire control of their own affairs. The Parisians under the powerful, but unwise, leadership of their Prévôt des Etienne Marcel, did secure independence temporarily, and in the old *Maison des Piliers* in the *Place de Grève* made a beginning of the Hôtel de Ville.



FIG. 5. ONE QUARTER OF MAP OF JEAN BOISSEAU (1654), SHOWING THE COURS LA REINE IN LOWER RIGHT HAND CORNER.

substituted is really more beautiful in quite an opposite way.

THE ENCEINTES OF CHARLES V AND CHARLES IX.

During the captivity of Jean II (le Bon 1350-1364), and the youth of the Dauphin afterwards Charles V (le Sage, King 1364-1380), it seemed for a moment that the people of Paris, first, and

To include the great properties on the north side, and the large population without the *enceinte* of Philippe-Auguste, Etienne Marcel began the line of circumvallation which, finished by Charles V, goes by his name. From the river on the east, it occupied the site of the present Boulevards as far as the Porte Saint-Denis. From this point it followed a line which passes through the

Place des Victoires and Place du Theatre Français to the river near the Pont du Carrousel. The *enceinte* of Charles V was not carried over to the south side. One result of the construction of the wall, which was probably foreseen by Marcel, was to bring the Louvre Castle within the city. This forced the king to build the Bastille (1369) against the wall on the other side to take its place. From this moment the Louvre ceased to be a castle and became a palace.

During the Renaissance period the growth of the quarters of Saint-Honoré and Saint-Roche; and especially the construction of the Palace of the Tuileries with the Pont-Rouge, now Pont-Royal, connecting the region with the fine territory of Saint-Germain-des-Prés; forced the authorities to build an extension of the *enceinte* of Charles V, from the Porte Saint-Denis along the line of the western Boulevards, the Rue Royale and the axis of the Place de la Concorde. This extension was begun under François I (King 1515-1547), and completed by Richelieu under Louis XIII (King 1610-1643); but it is always called the *enceinte* of Charles IX (King 1560-1574). The line of circumvallation on the north side, the *enceinte* of Charles V with the *enceinte* of Charles IX is fundamental to the plan of Paris.

The Renaissance period in France begins with the invasion of Italy by Charles VIII (King 1483-1498), in 1494, and ends with the death of Henry IV (King 1589-1610) in 1610. The topographical arrangement and appearance of Paris did not change much during this time from their mediæval condition. The great enclosures of the privileged classes still existed with the consequent congestion of the shops and houses of the common people in picturesque streets. The architecture of the Renaissance time is delicious; as for instance the old Hôtel de Ville, the court of the Louvre, the Pont-Neuf and other charming examples.

To Henri IV is due the characteristic scheme of placing at populous or otherwise important points in the city, great public squares surrounded by houses built according to a uniform and suitable design. The earliest of these was the Place Royale, now Place des Vosges, begun in 1605, from designs by the younger Jacques-Androuet du Cerceau, on the site of the palace of the Tournelles abandoned at the death of Henri II (King 1547-1559). The Place Dauphine on the site of the palace garden in the *Cité* was also created by Henri IV. In the reign of Louis XIV similar squares were established in the Place Vendôme and Place des Victoires.

THE BOULEVARDS.

During the stormy period of the middle ages and Renaissance a rational arrangement or reconstruction of Paris was impracticable. The rigid lines of fortification created conditions from which there was no escape. There are indications that the wise King Philippe-Auguste, who laid the first pavement of Paris in the Rue de la Barillerie before his palace, would have done many fine things if he could. François I took up a scheme for improvement, which was proposed to him, with much enthusiasm. But neither of these intelligent Kings, nor their subjects, who realized the depressing conditions under which they were obliged to live, could accomplish any large improvement. It was left to the broad autocracy and splendid culture of the period of Louis XIV (King 1643-1715) to conceive a new type of city which should be not only a proper metropolis for France, but should also meet the conditions of advancing civilization and be a suitable model for future civic construction.

The work began with the demolition and reconstruction of the northern line of fortification. During the interesting reign of Henri IV and more during the powerful domination of Richelieu and Mazarin in the reign of Louis XIII, the style of fortification was entirely changed. The simple wall with turrets which sufficed in the days of Jeanne d'Arc became obsolete and was replaced by a line of triangular bastions which the people called *boulevarts,* a word identical with the German *Bohlwerk,* and the English bulwark. The earliest and largest of these bastions was immediately to the north of the Bastille and the Porte

Saint-Antoine and was always called the *Grand Boulevart.*

With the disappearance of the disturbance caused by the Fronde, and the proclamation of the majority of Louis XIV in 1651, profound peace settled upon Paris. Louis, although only a boy of fourteen, at once became the most dominant personality in Europe, and through his long life made his country feared and respected. He was not averse to war, but managed to keep his stately campaigns beyond the limits of his own country. The old fortifications, remodelled by Richelieu fell into disuse. The people built wind-mills and planted trees on the bastions, or *boulevards,* and grass grew in the moats. The entire strip of land, and especially the grand *boulevart* of the Porte Saint-Antoine was used as a park and playground; practically the only park the people had. This condition is shown in the plan of Jouvin de Rochefort which is supposed to date from 1672.

At this moment the King and the authorities interested decided to accept the situation and to give the people what they wanted. A scheme was devised, probably best shown by the plan of Bullet and Blondel (1676), both leading architects, who were doubtless intimately associated with the work, which called for the levelling of the old fortifications and moat, and the construction on the outer edge of the space thus secured of a light wall with monumental gateways. Four of these triumphal arches, charmingly designed by François Blondel, were built, the Portes Saint-Denis, Saint-Martin, Saint-Antoine and Saint-Bernard. The two first are still standing. Within the wall the present avenue, still called the Grand Boulevard, was



FIG. 6. PART OF MAP OF JOUVIN DE ROCHEFORT, SHOWING THE AVENUE DES TUILERIES, NOW DES CHAMPS ELYSEES, 1672.

placed, as it appears in the map of Bullet and Blondel and in all subsequent plans; but the actual construction of it was long delayed.

The plan of Bullet and Blondel, which was really a *projet* drawn by order of the King, shows a corresponding avenue on the south side, one section of which, the Boulevard Mont-Parnasse, was actually carried out in the eighteenth century.

1793) and removed by Haussmann in 1860.

The imminent destruction of the present fortifications will create another line of boulevards or a ring of parks.

THE TUILERIES—NEUILLY AXIS.

In the history of architecture the reign of Louis XIV furnished the culmination of the classical scheme. The notion of



FIG. 7. PART OF PLAN OF JOUVIN DE ROCHEFORT (1672), SHOWING THE BASTIONS (BOULEVARDS) OF THE PORTE SAINT ANTOINE AND THE BEGINNING OF THE PLACE DU THRONE (PLACE DE LA NATION).

The Grand Boulevard of Paris is the ideal *Ringstrasse*. Something like it has been substituted for abandoned circumvallation in many European cities; the fine parkway in Vienna being the largest development of the conception.

The outer line of boulevards in Paris is simply a repetition of the inner line. It followed and replaced the Mur d'Octroi (tariff-wall) which was built early in the reign of Louis XVI (King 1774-

symmetry is inherent in Greek design. The Hellenic architectural unit has a definite axis; but it rarely happened in Hellenic times that the units were arranged with any regard for symmetry or harmony among themselves. The street as we know it did not exist in Greece. The Romans placed their unit, which was essentially Greek, in an open square or forum surrounded by columns which gave to it dignity and importance.

They also invented a splendid type of street consisting of a double row of colonnades, with the roadway between, like the Cardo and Decumanus of Timgad and the central street of Palmyra, which, however, beautiful as it was, gave no opportunity for the placing of fine monuments along its course. During the middle ages the necessity for living within fortifications led to such congestion that the development of the street was impossible. The Renaissance period in Italy improved conditions a little. The Via Larga in Florence and the Via Nuova in Genoa are useful streets but not in the least ornamental.

It was the special task of Paris in the Bourbon period to invent and carry to perfection the ideal street. The boulevard, or avenue then created is fine in itself, with its clearly defined roadway and *trottoirs* and its cool rows of trees; but it is still finer in its adaptation to the placing of monuments, either along its course or at either end, where distance furnishes axial vista and perspective. It was precisely this large sense of axial symmetry which was the most perfect product of the prolific reign of Louis XIV,





FIG. 8. THE PLAN OF BULLET AND BLONDEL (1676).

and the true completion of the classic idea.

What the designers of this period did for architecture and the street, they desired also to do for the plan of the city. It was logically in the course of events that they should seek an axis for the city of Paris; and to be expected that it should lie in the line of one of the arms of the Grande Croisée. The construction of the Tuileries palace in the time of Charles IX furnished the base from which such an axis might be drawn. A line at right angles to the palace in the axis of its garden, agreed well with the east and west arm of the Grande Croisée and was nearly axial to the intended enlargement of the Louvre palace. As early as the reign of Henri IV property in this direction beyond the *enceinte* of Charles IX was bought by the crown; and Marie de Medicis in the reign of Louis XIII laid out the Cours-la-Reine along the northern bank of the river. The Cours-la-Reine first appears in the map of Boisseau in 1654 and is probably the first street built on the perfected modern type.

In 1637 the famous André le Nôtre succeeded his father as gardener of the

Tuileries. He laid out the garden of the palace much as it is today, and it is quite reasonable to suppose that as *"Controlleur des Bâtiments"* to Louis XIV he saw the opportunity for a great avenue in the axis of the garden leading over the hill to Neuilly. At any rate this avenue is clearly defined in the earlier plan of Jouvin de Rochefort (1672) under the name Avenue des Tuileries. The *rond* Jacques-Ange Gabriel was not finished until 1763.

In the plan of Jouvin de Rochefort (1672) appears for the first time the emplacement of the Place du Throne, with the triple arch *in situ* and the beginnings of the Avenue de Vincennes. If the axis of the Avenue de Vincennes is prolonged, it inclines only a few degrees from that of the Louvre-Tuileries mass of monu-



FIG. 9. PART OF PLAN OF LA CAILLE (1719), SHOWING PLACE DU THRONE AND RUE DU FAUBOURG SAINT ANTOINE.

point of the Place de Etoile appears in plan of Roussel in 1731. The Pont de Neuilly and the avenue to the river and across to Courbevoie were built in the reign of Louis XV (King 1715-1774).

In the plan of Bullet and Blondel (1676) a superb piazza is projected as an entrance to the Avenue des Tuileries, but the elaborate scheme for the Place de la Concorde which immortalized ments. There is no proof for the hypothesis, but it is interesting to suppose that the city-builders of the Seventeenth Century desired to construct a great avenue between the Place du Throne and Louvre corresponding to that between the place de l'Etoile and Tuileries.

The desire to introduce axial vistas into the plan of Paris during the seventeenth and eighteenth centuries resulted

in several monumental arrangements which are too well known to require discussion here; the Invalides, the Luxembourg, the Ecole Militaire and the fine beautiful plan of Paris as we know it today was actually conceived by the architects of the seventeenth and eighteenth centuries. It will later appear that the



FIG. 10. ONE QUARTER OF THE PLAN OF JAILLOT (1775), SHOWING THE TUILERIES-CHAMPS ELYSEES AXIS, AND THE AXES OF THE PLACE DE LA CONCORDE, LUXEMBOURG, INVALIDES AND ECOLE MILITAIRE.

Place de la Concorde with its sunken parterres and equestrian statue, which was injured so much by reconstruction in the nineteenth century.

After this brief outline, it will, doubtless, be clear to one interested, that the vast activities of the nineteenth century were controlled by a loyal regard for the principles then established.

Edward R. Smith.
Reference Librarian, Avery Architectural Library, Columbia University.



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The Department of Architecture of Harvard University

The scheme of professional training in architecture in Harvard University is based upon the conviction that an adequate preparation for the profession of architect under modern conditions involves far more than might suffice for the production of skilled draughtsmen or constructors. To be well prepared for the practice of architecture involves and includes both these, but it implies also scholarly familiarity with the resources of the art, knowledge of the practical needs that have to be met and expressed, and a keen and intelligent sympathy with all that is best and most vital in the civilization of which architecture becomes in a very real sense the embodiment.

The Committee on Education of the American Institute of Architects in its recent suggestive report insists that the architect must rank "in the class of men of culture, learning and refinement"; he must be a "creator of beauty," "an exponent through material forms of the best secular, intellectual and religious civilization of his time," besides being "an organizer and director of manifold and various industries and activities." "From these assumptions," the report goes on, "it follows necessarily that the object of architectural education must be the breeding of gentlemen of culture, learning and broad sympathies, who understand the dignity and significance of art both as beauty and as language, who are perfectly proficient in the technique of the art they follow, and who can inspire, organize and direct widely different classes of men."

These have from the first been the ideals of the Department of Architecture at Harvard. In the announcement of the Department for 1894 it was stated that the curriculum was planned on the recognition "that architecture is essentially a Fine Art, the practice of which must be based on a thorough knowledge of construction. Great stress has therefore been laid not only on continued practice in design and drawing, but on thorough instruction in the history and principles of the Fine Art of Architecture and the arts allied with it," and "courses are included which will enable the student to understand the relation of architecture to the other arts and the relation of the art of different periods to their social and political life, a knowledge without which the architect is not likely to use the forms of his art in an intelligent and scholarly manner." And again, in an article published in the Harvard Engineering Journal for June, 1902, on "Architectural Education at Harvard University," occur the following passages: "The training of an architect under our modern conditions demands a wider scope than is often realized. An architect who is really to carry forward his art requires to be an artist, a constructor and a scholar; while if he is to succeed in his calling he must also be a good business man. All these capabilities are rarely combined to high degree in any one man, hence the necessity for the development of architectural firms. But architectural education needs to take account of all these sides of this many-sided calling, and no man can rightly regard himself as a well-trained architect who has not developed his capacities to some extent in all these directions. Even if he should devote himself to one side only of his profession, whether as principal or assistant, he will need to understand and sympathize thoroughly with all these points of view in order to work to best advantage." "As an artist the architect of modern times occupies a peculiarly difficult position. In the elder days of art, in the great periods, architectural style and expression were matters of tradition. On the firm ground of this accumulated but limited experience the architect stood ready for further advance. He worked grammatically without understanding grammar, be-

cause the forms were traditional. Accomplishment was therefore a matter of national much more than of individual achievement. In our day and country we are almost without traditions, and, however much we may deplore the fact, we cannot change our circumstances. We must take our birthright as we find it. Moreover, there seems no reasonable probability that, in any appreciable future, this condition will change. There is only one thing which can be substituted for tradition and prevent our architecture from running, as it so often has, into parrot-like imitation of bygone styles or hopeless and vulgar extravagance, and that is Scholarship. A scholarly training and a scholarly point of view is the one thing which—more than all else just now—our architecture needs as a guide and a corrective. If an architect thoroughly understands the history of the forms which he is obliged to take as a starting point, if he knows what constructive conditions, what material wants, what ideal conceptions gave rise to them, if he realizes to some extent the conditions of civilization out of which they grew—and at the same time knows and sympathizes with what is best in those of his own day—he will not misuse these forms, he will not combine such as are essentially inharmonious or use for one purpose what was intended and is only truly serviceable for another and totally different one. If besides this an architect thoroughly understands the fundamental principles on which depends the beauty of the fine things of the past, if, from the constant tracing of these laws of design as exemplified in the work of Greece, of the Middle Ages, and of the Renaissance in Italy, the observance of these principles has become second nature to him, he will have no difficulty in applying them to new conditions and in inventing new forms or new modifications. This is what I mean by Scholarship in Architecture. I believe it just now to be the one thing needful."

For these reasons the required four-year curriculum of the Lawrence Scientific School in architecture has always included, besides the study of freehand drawing, of architectural design and of construction, courses in the general history of the Fine Arts, and in the development of civilization (making use of the resources of Harvard College), and three successive full courses have been devoted to the history of architecture from the point of view both of technical development and of the relation of architecture as a fine art to civilization. In these courses constructive development is also insisted upon, and the students familiarize themselves in a practical way with the various important constructive processes. In the study of vaulting the students build large scale models of Byzantine and Gothic vaults. An advanced course in architectural history has also been maintained in which each student works under guidance on some special field in which he is particularly interested. The study of ancient and modern history, of advanced French as well as advanced German, have also been demanded as prerequisites, besides the physics and the mathematics necessary for the study of construction. Unless taken at admission these studies have been required after entering the school.

In furtherance of these ideals students have always been encouraged to take the academic course in Harvard College before entering on the work of the four-year course in architecture, and the department has always contained a good proportion of college graduates. Recently the University has felt itself strong enough, in pursuit of the general policy above outlined, to establish a graduate technical school, for admission to which a college degree is required, and at the present time five young men already holding the A.B. degree from Harvard College are candidates for the professional degree in architecture—three for the new degree of Master in Architecture, which is given after at least two years of concentrated professional work following their graduation from college. The course in this higher technical school and the candidacy for its degreees are open to holders of any Bachelor's degree from a college or scientific school of good standing. This course distinctly puts the study of architecture in its right place as one of the



FIRST YEAR WORK—EXAMPLE OF THE DORIC ORDER.



FREEHAND DRAWING OF THE SECOND YEAR.

learned professions, and places the technical courses in the new graduate school on a par with the Harvard Medical School and the Harvard Law School, which also demand a college degree for admission. But the Department of Architecture, like the other Departments of the new Graduate School of Applied Science, is still in a period of transition, and for the present the four-year curriculum of the Lawrence Scientific School will be maintained side by side with the new scheme of work.

While thus insisting on a broad general training, the work is so arranged, in either of these schemes of study, that at least four years' continuous work in architectural design and in freehand drawing is demanded for the degree, besides the study of masonry and carpentry construction, elementary statics, strength of materials and structural design. The work in freehand drawing includes drawing from the cast in pencil and wash, water-color, pen and ink work, and drawing from the life. A half-year is devoted to clay modeling as an important discipline in grasping architectural detail in the round and in handling mass and light and shade.

In architectural design the first two years of work are preparatory. This work includes a thorough grounding in the orders and the elements of architectural form, lectures and exercises on the fundamental principles of design in the fine arts with especial reference to architecture, and elementary academic problems in architectural design and a training in elementary decorative design. The work is carried on mainly by problems and criticisms. The student is taught to regard not only the merely decorative quality of the forms used but their value as terms of expression. He is taught to understand the origin and meaning not only of the larger motives but of each detail, and so to appreciate that beautiful architectural forms are organic expressions of structural functions. He learns for instance the orders not as mechanical formulae but as vital and beautiful expressions of structure, and as he learns them through design he forms the habit of working intelligently and with freedom, and of attacking each new problem in a vital way. He is taught to avoid on the one hand blind copying, or merely archaeological study, and on the other capricious innovation for the sake of novelty. He is taught to regard every piece of design he undertakes as a problem to be artistically and sympathetically solved as an outgrowth of its conditions in the way that seems to him most natural and expressive; and above all he is taught to seek beauty as the main aim of all that he does.

In all the work in design the endeavor is to consider detail always in its relation to the design of the building taken as a whole, and while insisting on the importance of delicacy of feeling and thoughtful designing in the treatment of detail, to teach the student to regard the detail always as subordinate to the large

conception of the whole design, whether considered decoratively or with regard to constructive expression. In the study, therefore, of the elements of architectural form at the very beginning of the course—the orders, for instance, are studied as essential parts of the buildings to which they belong, and the study of these forms is accompanied by the designing of simple structures in which they are used. The form of good detail is thus seen to be not arbitrary or capricious, but the beautiful and appropriate expression of a structural idea. So also in the study of more advanced design, executed designs are first analyzed and the student is taught to see how the exterior of every well-designed building must be the outgrowth and expression of its plan and interior arrangement as these are of the practical conditions of the problem. This is emphasized by having the students make designs from verbal description, the programme having first been analyzed, and then at the same scale draw out for comparison with their own design the design that has been described. These exercises are rapidly done, occupy but little time and are valuable in accustoming the student to the analysis of the plan as an outgrowth and harmonious expression of given conditions and as the basis of the elevation. The advanced work in design is carried on, as in all our schools of architecture, by means of problems and criticisms. The designs are always started by eight-hour preliminary sketches made by the student without guidance or assistance. These sketches are criticized before the class and then each student elaborates his design, with such modifications as are suggested, under the daily criticism of the instructors over the drawing boards. The problems usually occupy a month or six weeks. Shorter problems lasting four or five days are also given from time to time, to widen the student's experience and to encourage rapidity in seizing and expressing an idea. The designs finally presented in the form of completely rendered drawings are again criticized before the class. The problems given are based upon actual American conditions, and while ideally treated, are founded on the practical requirements which the student will later have to meet in practice. Each problem when it is given out is made the basis of study —usually introduced by a lecture—of the requirements of buildings of the class under consideration. It is believed that this plan of work, while it increases the difficulty, gives the student more re-



FREEHAND DRAWING OF THE THIRD YEAR.
(Copy after J. M. W. Turner.)

source and facility in solving the problems he will later have to meet, than would be the case if problems of more academic character were given out, with more or less fixed types of plan, often remote from the conditions and demands of actual practice. In every way the student is helped to think of his designs as actual structures, to consider and to study their appearance when built rather

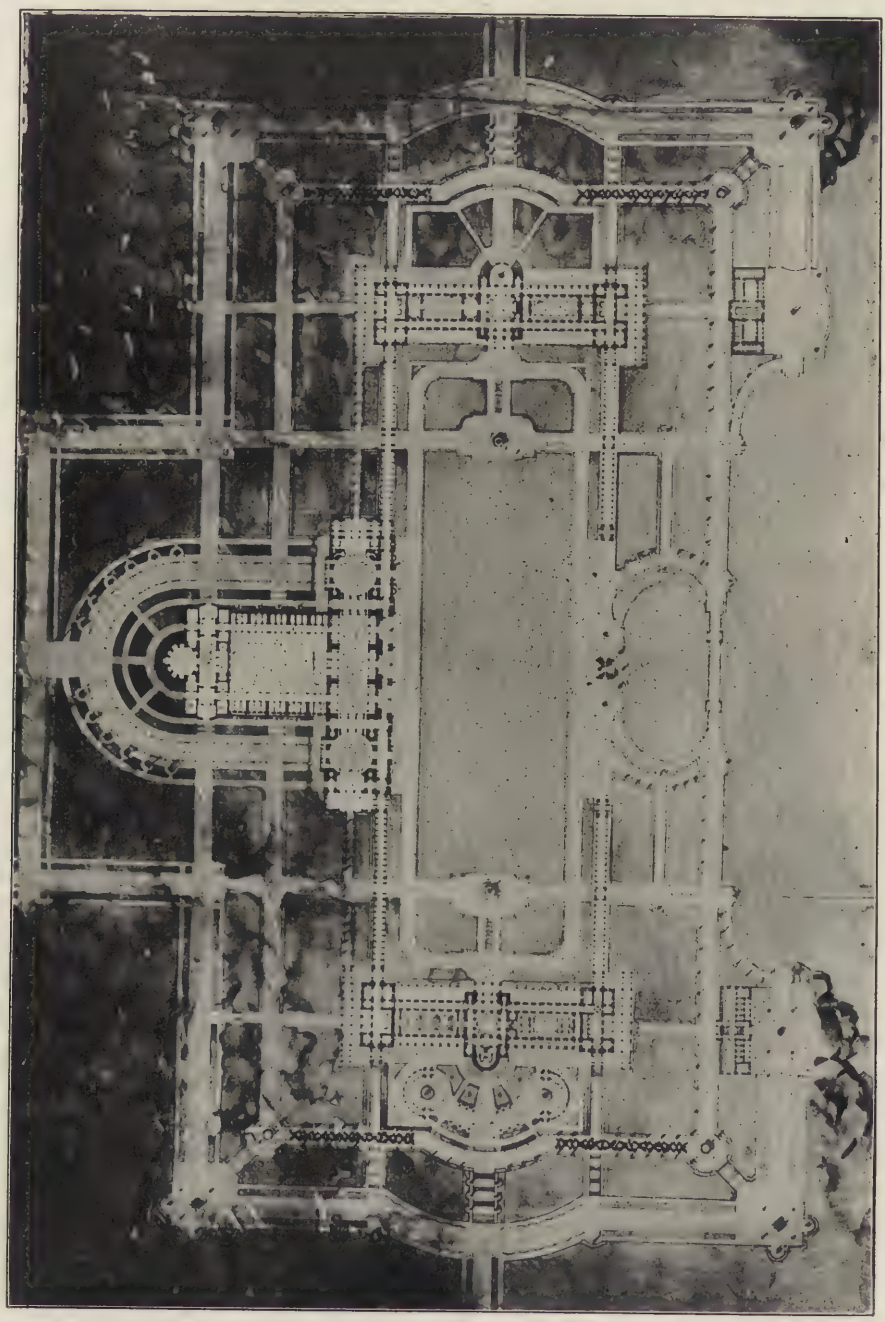
than to fix his attention on his results on paper. He is taught to look through the drawing to the actual building. He is taught to base his work on precedent, the best precedents are constantly urged upon his attention, and he is encouraged to use precedent freely to attain to such fresh and spontaneous expression as he is capable of and as seems appropriate to the problem in hand. To help him to some conception of actuality in the handling of his designs, the year is begun, for all except the beginners and the most advanced students, by measuring and drawing out some existing building or important portion of a building.



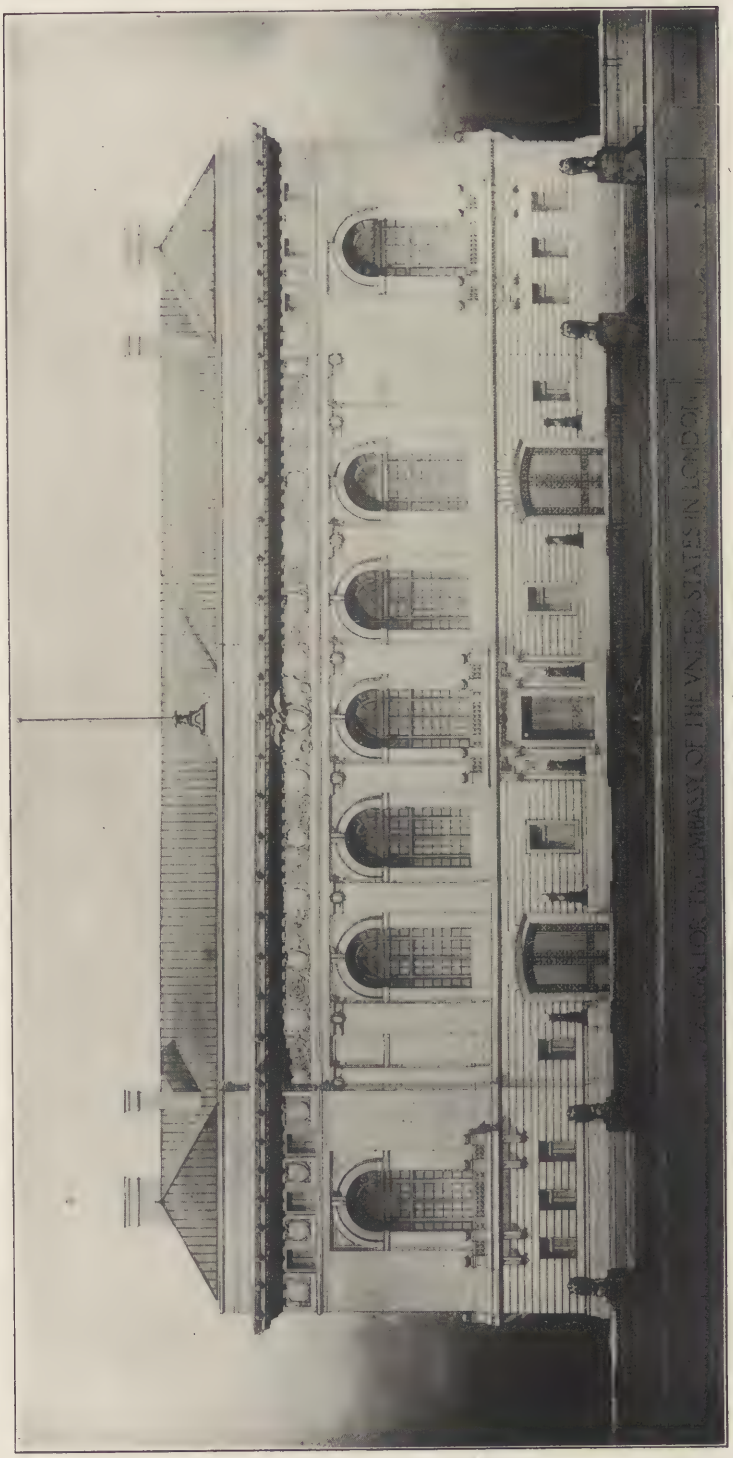
A MUNICIPAL COURT HOUSE.

The advanced work in design is carried on with the co-operation of prominent architects appointed as "Lecturers in Architectural Design," for short terms of service in rotation, who successively undertake the direction of problems. Each problem is introduced by a lecture on the general conditions and requirements of the class of buildings to which it belongs. In this way amongst other problems, school houses, university buildings, large private estates, the laying-out of city squares, city halls, town halls, hospitals and medical schools have been studied and the best solutions brought to the attention of the students. Following the introductory lecture the conditions of the particular problem to be solved are given out, and the preliminary sketches are then criticized before the class by the lecturer, who afterwards follows out in detail the development of the designs, working with the students over the drawing boards, as previously described in the case of the work of earlier years, and the final results are again criticized before the whole class. Since this method of work was introduced, Messrs. R. S. Peabody, Frank Miles Day, E. M. Wheelwright, R. C. Sturgis and C. A. Coolidge have acted in the capacity of "Lecturers." Messrs. Sturgis and Coolidge have been appointed as Lecturers in Architectural Design for the coming year. This method of work has proved exceedingly useful and stimulating and has been productive of excellent results. It is perhaps worth while to notice in this connection that the principal instructors in the Department are all practising architects.

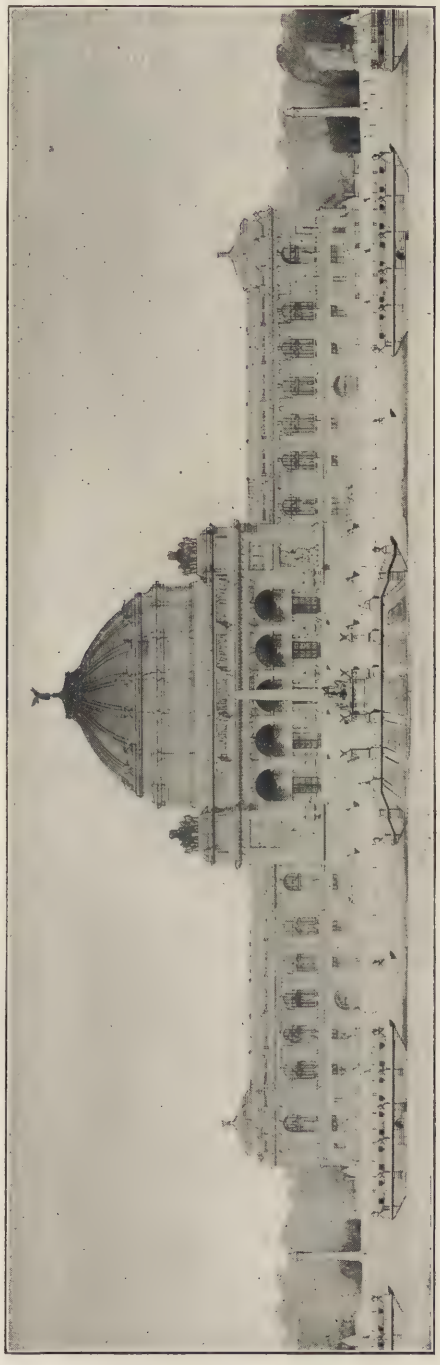
The work for the degree is finished by the preparation of a thesis design, which occupies the last four months of residence, and which is more completely



A HYDROPATHIC ESTABLISHMENT.



DESIGN FOR THE EMBASSY OF THE UNITED STATES IN LONDON.



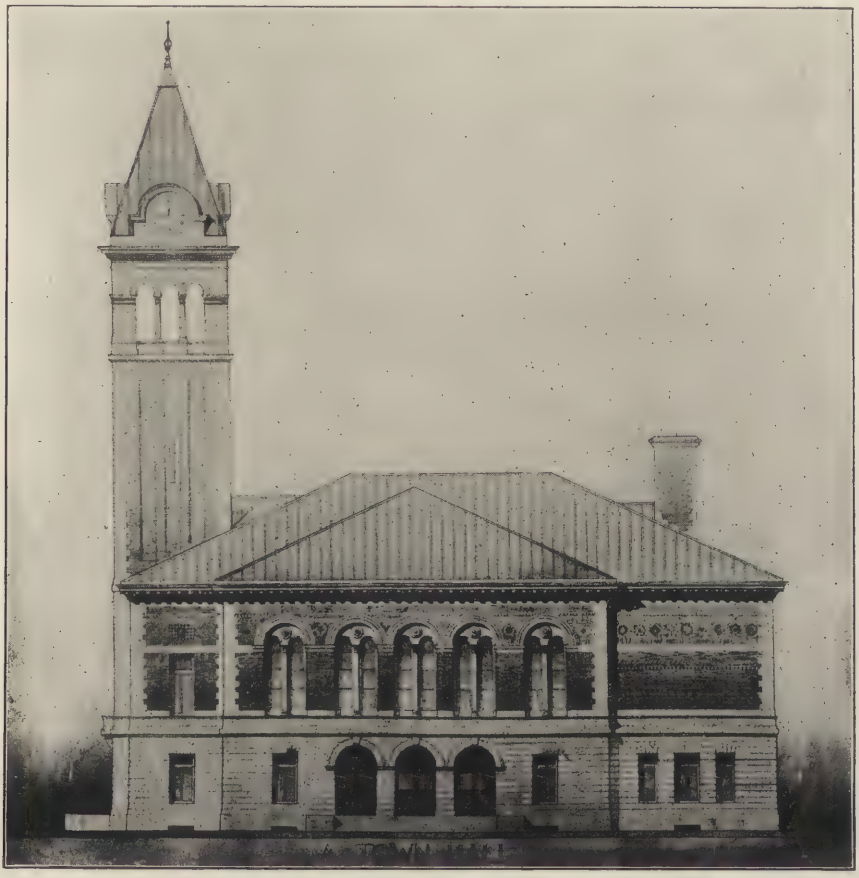
A PEACE PALACE.

presented and more thoroughly studied than the earlier problems. It is, as it were, the summing up of the student's experience. The theses of the current year include: a large summer hotel at a southern resort; a great casino; a large city house; a school of dramatic art; a church and parish buildings; a university group; buildings for a large college in the country; a boys' boarding school; a county court house. These titles give some idea of the range of problems selected.

The Department of Architecture at Harvard disposes of two important Traveling Fellowships which are offered in alternate years. These Fellowships are each of the annual value of one thousand dollars, and the winner is reappointed for a second year if he has made good use of his opportunities during his first year. The awards are made on the results of competitive examinations in design and in architectural history. The examination in design, as is usual with such fellowships, consists of a problem for the solution of which three weeks are given. The Fellowship holder spends his two years of travel and study in Europe, under the direction of the Department, and he usually spends the greater portion of his time as a student of the American Academy in Rome. The important measured drawings which these students send back are stimulating and beautiful additions to the resources of the Department. There are also two scholarships awarded each year to students who have already taken the professional degree and who wish to remain for a year of advanced study for the higher degree. The Department welcomes properly prepared special students, whether draughtsmen from offices or others.

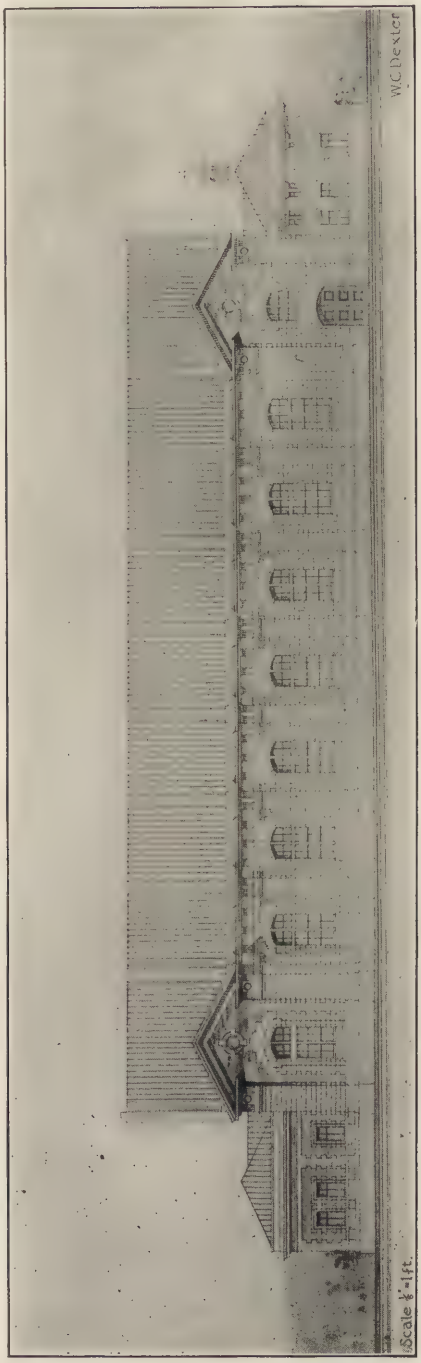
There is probably no part of the education of the prospective architect so important as the constant development of his sense of beauty, and this perhaps he gains quite as much by daily and hourly contact with the most beautiful works of past art as by instruction or the direct exercise of his own artistic faculties. It is quite certain that the constant presence of the best models, their uncon-

scious influence through daily sight and enjoyment, as well as through frequent study—drawing them, analyzing them—is not only a powerful stimulus to the imagination, but acts unconsciously in increasing artistic sensitiveness and raising the standard of taste. In this respect the Department of Architecture at Harvard is peculiarly fortunate. In the midst of the pleasant and inspiring surroundings of the oldest university of America it has in Nelson Robinson, Jr., Hall a building exclusively devoted to its use and admirably designed for its purposes, the work of Mr. McKim. Its Hall of Casts, which runs the entire height of the building, contains full-size reproductions of some of the most famous and beautiful fragments of past architecture. The Doric order of the temple of Theseus at Athens, one corner of the exquisite little Ionic temple of Nike Apteros on the Athenian Acropolis, the Ionic order of the Mausoleum at Halikarnassus, the Corinthian order of the temple of Vesta at Tivoli, a large portion of the triumphal arch of Trajan at Beneventum, the window and balcony from the Cancellaria Palace in Rome, the charming fountain by Ver-

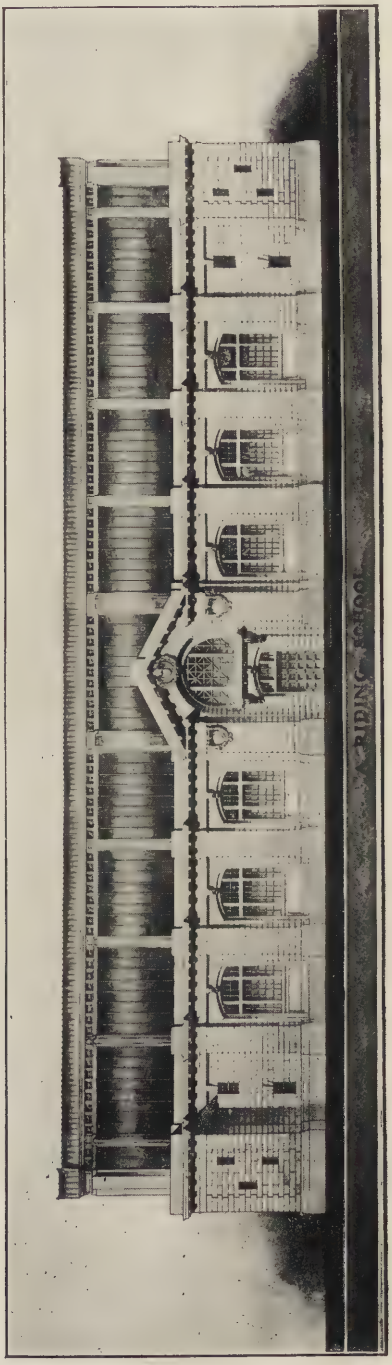


A TOWN HALL.

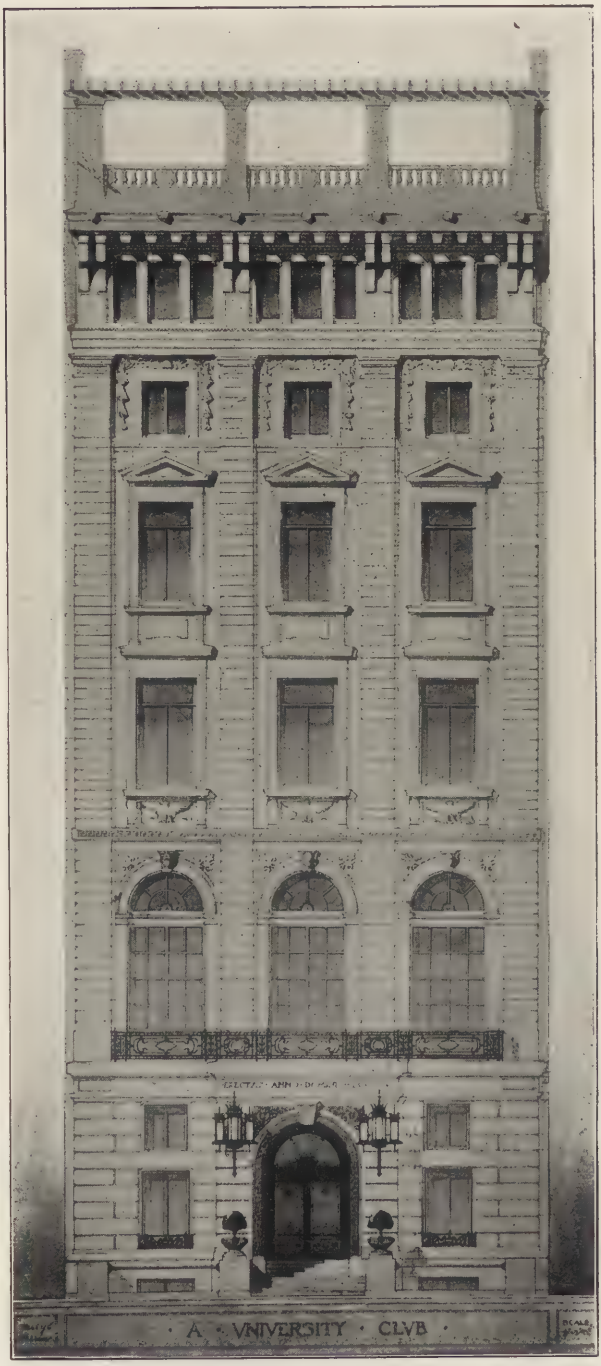
rocchio from the courtyard of the Palazzo Vecchio in Florence, portions of the choir screen of Chartres Cathedral, are some of the principal objects thus represented, besides cornices, capitals, altars and other smaller details. The collections also include a number of extremely interesting original marble fragments of Greek, Roman and Renaissance architecture. Several of the doorways in the building are reproductions of famous examples of Ren-



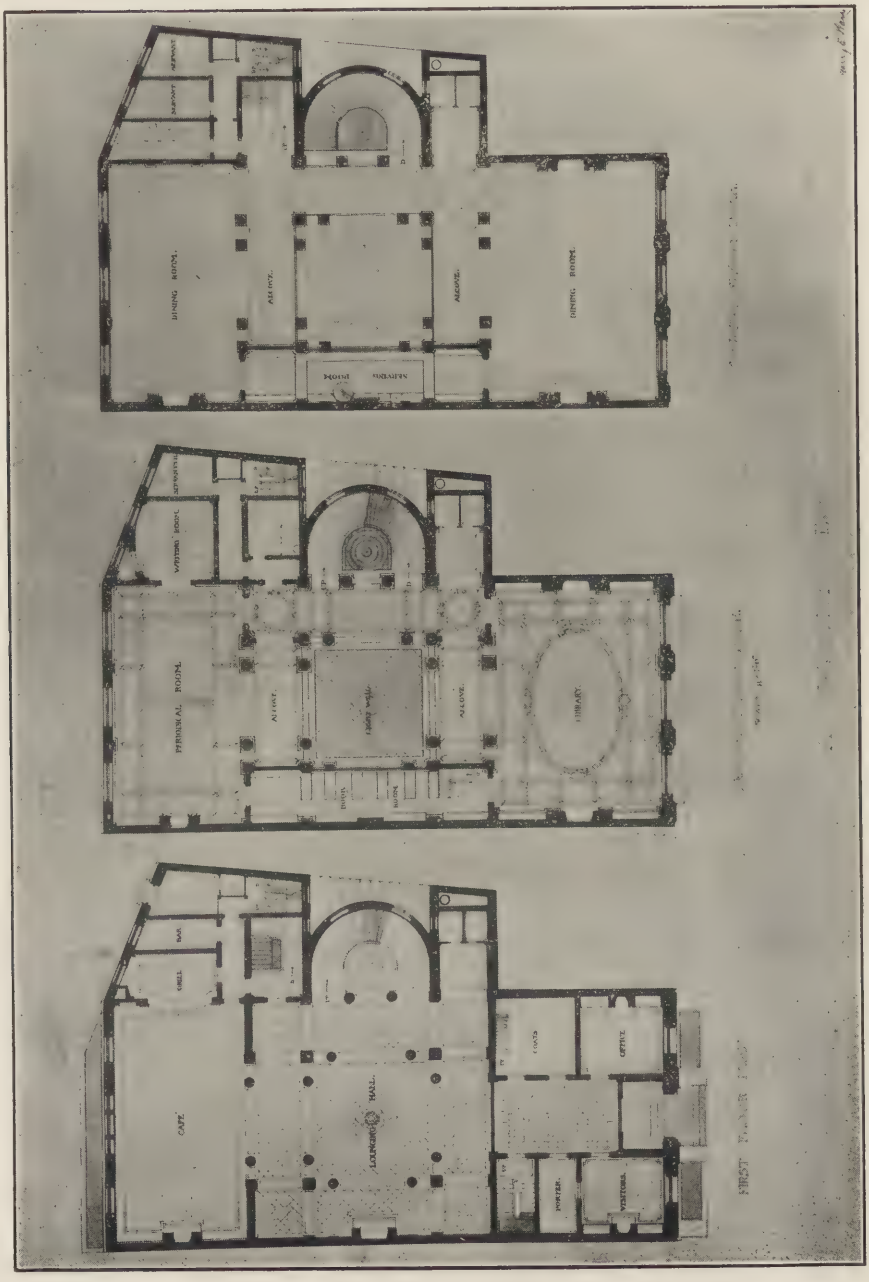
A RIDING SCHOOL.



A RIDING SCHOOL.



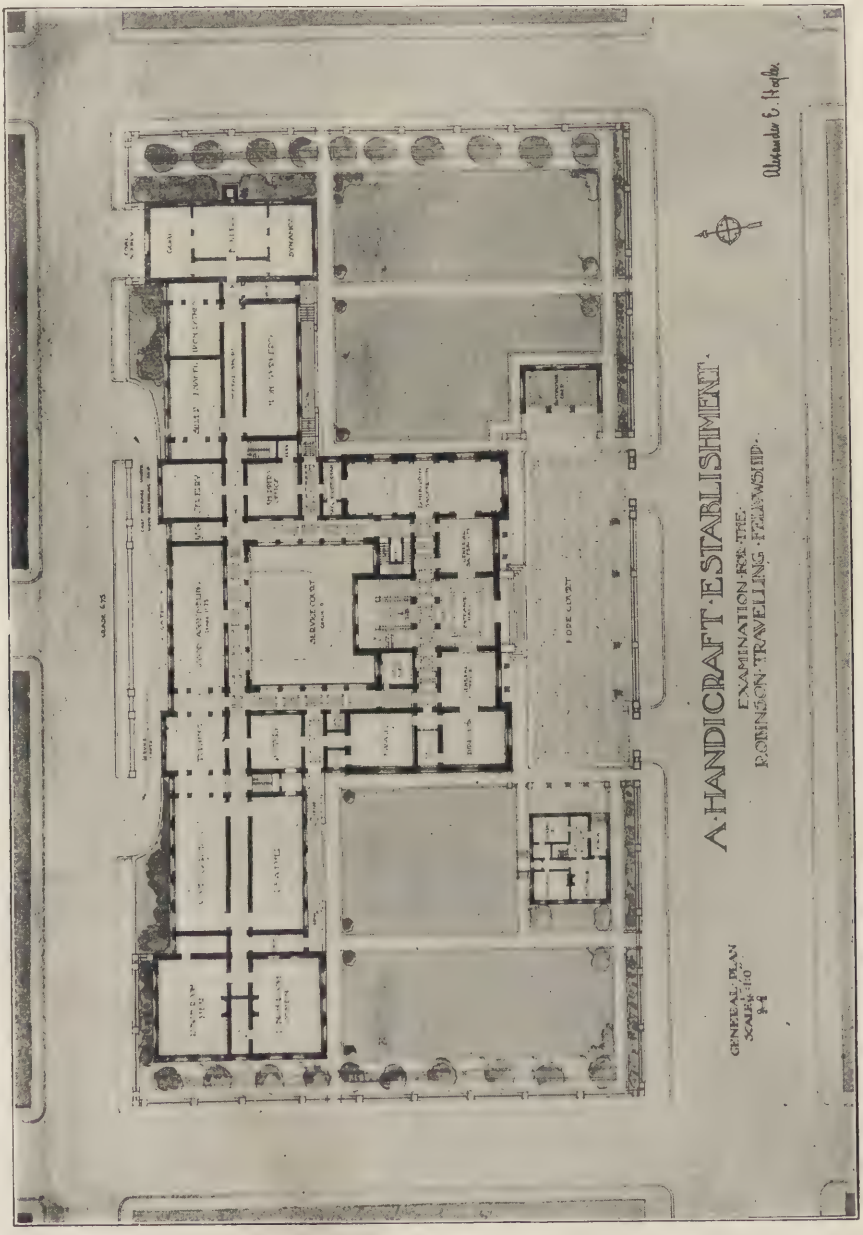
A UNIVERSITY CLUB HOUSE—ELEVATION.



A UNIVERSITY CLUB HOUSE—PLANS.

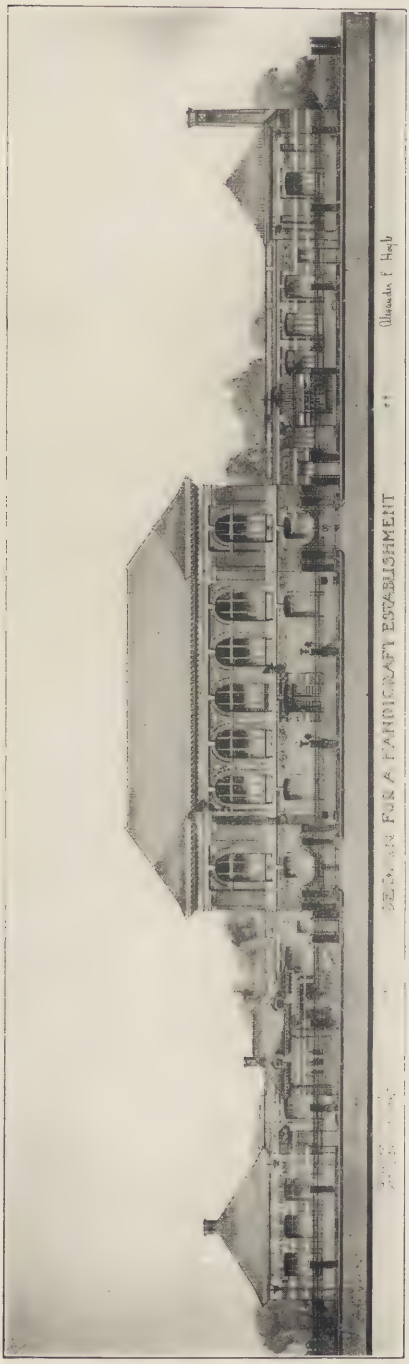


HOUSE OF JOHN SANDER, ROME.



A HANDICRAFT ESTABLISHMENT.

aissance or Classic art, and they are thus seen, not as mere museum pieces, but almost as they might be seen in the buildings for which they were designed. The freehand drawing-rooms contain casts of Gothic and of Renaissance detail, besides Eastern stuffs and bronzes, and a small but excellent collection of pencil and pen drawings, watercolors and paintings of architectural subjects, among them works by such masters as J. M. W. Turner, J. D. Harding, Prout and Cotman, besides more recent works. In the main drawing-room on the second floor, which occupies the whole length of the building, other casts and important architectural drawings are displayed. The library contains some 10,000 architectural photographs and nearly 1,400 volumes. The main lecture room is provided with two electric stereopticons placed side by side for simultaneous use in the comparison of buildings in the lectures, and there is a collection of some 8,000 lantern slides. But the collections of Robinson Hall itself are by no means all the resources of instruction and inspiration of which students in the Department enjoy the advantage. Adjoining it is the Fogg Art Museum, with its casts and beauitful paintings and its collection of 40,000 photographs of architecture, sculpture and painting, and 3,643 lantern slides. In the lecture room of the Fogg Museum the courses on the general history of the Fine Arts are given. Across the road from Robinson Hall is the Germanic Museum, with its extremely interesting and important collection of casts of German Mediaeval and Renaissance architecture, largely the gift of the German Emperor, and its large scale photographs of German architecture. The architectural building has the further advantage of near neighborhood to the University Library, which has over 8,000 works on the Fine Arts. The students make free and constant use of these collections, and from time to time books and photographs that may be specially needed in the work of the Department of Architecture are temporarily transferred to Robinson Hall. In every way the students are encouraged and aided to make the fullest and most fruitful use of these unusual resources.



HANDICRAFT ESTABLISHMENT—ELEVATION.
Awarded the Nelson Robinson, Jr., Fellowship, 1906.

H. Langford Warren.



THE OLD UNION THEOLOGICAL SEMINARY (1883).

Park Avenue, 69th and 70th Streets, New York — William A. Potter and James Brown Lord, Architects.

(Photo by J. H. Symmons.)

The Old Union Theological Seminary

The "old" buildings of the Union Theological Seminary would not be old anywhere but in America. Even in America, even in New York, they are dying rather young. Taking a generation of men for the duration of a building, they are cut off in their prime, so to say. This generalization as to the life of a building is the late James Renwick's, who remarked that the business of an American architect was to build something that would stand and be presentable for thirty years, after which date, in the ordinary course of things, its room would be more valuable than its company and it would be demolished. To architects the remark may sound cynical. But it is the mere expression of a fact—the more's the pity. In other countries the architect has assurance that his work, at least if it be of the "institutional" kind, will outlive him. In some parts even of this country he has this assurance. But in New York he has to face the probability that the institution for which he is building will take up its bed and walk whenever the land it holds either greatly declines or greatly advances in value. The former case, with our abounding commercial prosperity, is not very frequent, since there are few parts of New York where land is not worth more than it was a generation ago. Curiously, the one part which is the most conspicuous exception to the rule of advance is that in which the institutions are anchored, and the buildings of one and two and three generations ago are still extant. In the other case, the common case, business drives out residence or costly residences drive out humbler. The "electrification" of the tunnel, the benefits of which seem to some already to be fully discounted in the prices of property on Park Avenue, is probably immediately responsible for the migration of the Union Theological Seminiary. It meekly and duly follows the northwestward march of Columbia and of the College of the City of New York, but in an accelerated ratio, for the C. C. N. Y. held its ground for half a century, and the oldest, though by no means the most valuable, of the Columbia buildings for much longer, whereas the Theological Seminary has not fulfilled its generation, dating, as it does, only from 1883.

It is a great pity as to architecture, this "convulsion and disjection," for it is what Ruskin calls "building statues out of snow." You cannot get a sculptor to "sweat blood" in that way. Neither can you get an architect to take a very serious view of work which he can reasonably expect to outlive. His fashions last a little longer than the tailor's and the milliner's. But they are almost as distinctly fashions. And the aim of the architect who designs these foredoomed erections must be limited to becoming a fashionable architect, and to producing the largest number of "ephemeroi." It were a fond imagination that you can get as good work in this way as when generations of builders wrought at a single monument.

Particularly is it a pity that a building so "wrought with care" as this old building of the Union Theological Seminary should have to go. Truly a particularly ruthless fate seems to have pursued the monuments of the Gothic revival in New York. In secular work, the Academy of Design, the Brooklyn Academy of Music, the old Produce Exchange, the old buildings of Columbia in Madison Avenue and this present Union Theological Seminary were without doubt among its chief successes. Not one of them has survived its architect. The workers are with us, but their work is gone. Some of it, some of the best of it, is no longer accessible even in a photograph. It is at all events a satisfaction for the Architectural Record to prevent this latter calamity by taking and publishing a picture of the building while it yet remains.

It will be seen that Mr. Potter's work holds its own excellently, even in the exacting competition to which we have referred, with the works of Mr. Fidltz and Mr. Wight and Mr. Haight. Al-

though the front has the unusual advantage of a whole block to itself, the project suffers from want of room. If the site had been a square of the avenue front the scheme would have been nicely accommodated, the scheme of a quadrangle surrounded by collegiate buildings, of which the chapel is, by the necessity of the case, of the chief importance. In fact, however, the depth of the plot is only some 125 feet against the 200 of frontage, and not only does this limitation entail a huddled effect in the view from either side street, an effect especially undesirable in collegiate building, but the less important buildings are by practical necessity heightened so as to tower above those superior in importance. But this is the only drawback. The Gothic revival has nothing better to show in New York than the Park Avenue front of the Seminary. So it seemed when the front was new. So it seems now, after the wear and tear of a quarter of a century.

Truly, let any one run over in his mind the cases, not so very numerous, in which an architect has had a block front to cover with an institution—that is to say, one of the short block fronts between cross streets to which the commissioners of 1807 practically restricted all architectural façades on Manhattan Island, except those highly improbable cases in which the architect had a chance at a frontage of, say, four hundred feet between one of the original and one of the interpolated avenues. There are comparatively few even of these. The Madison Square Garden possibly denotes the best architectural advantage to which one of them has been put. Then there are the frontages between the original avenues, frontages of eight hundred feet or so. These are very few, and of those which have been turned to architectural account memory at the moment retains but two, the two frontages of the General Theological Seminary down in Chelsea Square being one, and the single frontage of the Museum of Natural History up in the western eighties being the other. But, limiting ourselves to the short block front between cross streets, who can recall a happier and more sufficing treatment than that of the Union Theological Seminary? Pity, one repeats, that the architect had not room enough, deepwise, to realize completely his notion of a "rus" and also of a cloisteral seclusion "in urbe." But what an engaging and attractive front it is.

The constriction of the site which the architect of 1883 suffered in his rearward and more altitudinous erections left him at least free to put his academic buildings on his Park Avenue front. Let us rather congratulate him than pity him, upon the whole, upon his opportunity. And let us very particularly congratulate him upon the use he has made of it.

The triple division of this unusually long frontage, dictated by architectural considerations, very happily happened to come in with the practical requirements. A tier of lecture rooms on each wing, flanking the chapel, is an obvious treatment—after it has been done. And the architectural denotation of this arrangement pleasingly coincides with the architectural requirement of making the most of the unusual frontage. This latter is emphasized by keeping the wall of the basement story in one plane, without projection or recess from end to end.

One says "obvious" very much at his ease. It is obvious when it is done. All the more credit to the designer to whom it is obvious before it is done. Even the general scheme by which the desirable triple division is secured with a tier of lecture rooms at each end and the towering mass of the flank of the chapel between them is, so far as we know, without any precedent in collegiate architecture. But how very effective and impressive it is. And observe the nuances that show artistic sensibility. Remark, for example, how well the lower building at the right of the photograph is made to balance the tall gabled building at the left by the erection of the tower so much nearer the right than the left terminal of the composition. What an effective balance this arrangement gives, without the formal symmetry which has been so far abandoned in favor of an expressive treatment. If any man calls this a stroke of genius, the present commentator will be the last to quarrel with him.

The "features" and the detail follow and promote in their several degrees the effect of this lucky "lay out." The photograph gives no notion of the effectiveness of the combination of material. Collaberg brick of an excellent color, and not smoothed out of all character of texture, is employed in the fields of the walls, with the joints bevelled backward to enhance the sense of texture. To the same effect the courses of reeded bricks in the upper stages of the tower, alternating with plain, where the difference, without amounting to a contrast of color, emphasizes the sense of texture and of structure. To the same effect, also, the use of brownstone as the complementary material of the brick work. Fashions have come and gone since 1883. But the "pale children of the latter light," in so far as they themselves are artists, really have to acknowledge the artistic character of these dispositions and of these refinements, and to own that it would be a kind of public calamity to have the front in which they were exhibited disappear and be no more seen.

And, of a truth, why should it disappear? Why should it not rather be transplanted and suffer a land-change? Nobody can blame the Union Theological Seminary for "following the movement," and, with the new resources accruing at least in part from the altered and enhanced possibilities of its old site, from fulfilling its enlarged requirements elsewhere. But here is an architectural project executed and approved, "cum laude," by the experience and the wear and tear of the quarter of a century. What a pity that it should have to go! And why should it have utterly to go?

It seems a pity and a loss that it should have to go. It seems a pity that some church about to build should not refuse to see the necessity that it must go altogether, even if it has to be removed in obedience to irresistible demands of material progress. The other month we were commending the example of that intelligent and appreciative parish priest who managed out of what fragments he could secure of the demolished Academy of Design and the demolished rear of St. Patrick's Cathedral, diverse as they are in style and unpromising as the elements of an architectural amalgam, to compile, in the church of "Our Lady of Lourdes," on the upper West Side, a parish church far more interesting than he could possibly have procured at anything like the same cost, as the result of an "original design." And that was not only a reproduction, or even a compilation, but a "cento." Now here in the Park Avenue front of the old Union Theological Seminary is not only the design but the material of a "parochial plant," attainable, given the inexorable condition of a "block front," say, at one-tenth of the cost of the execution of an original design. Why should not some priest, pastor, building committee, seize this opportunity before it vanishes?

The rebuilder has even a clear chance of improving upon his original. Evidently, both for the purpose of practical accommodation and for the purpose of architectural effect, the design of the Union Theological Seminary in Park Avenue would be greatly improved by the addition of a bay on the left to the central church edifice, through the suppression of a bay of the connecting 'curtain" on that side. Of course the original designer had his reasons, imperative reasons, for the curtailment of his chapel. But remark how, with this change, the reproduction of this admirable piece of ecclesiastical architecture would serve the purposes of a "parochial plant." The church, of six bays instead of five, in the central and dominating place. The rectory, parsonage, 'pastoral residence" or what not on one side. The "parish house," "mission," "Sunday-school" or what not on the other. And all at a cost of transplantation of, say, a quarter of the cost of an original erection for the same purposes by overwhelming probability not so good. The opportunity is great. But the time in which to seize it is short.

NOTES & COMMENTS

WILLIAM LE BARON JENNEY

We publish herewith a short sketch of the career of Mr. W. L. B. Jenney, architect and engineer, who died June 15 last at Los Angeles: William Le Baron Jenney was born in Fairhaven, Mass., September 25, 1832. He graduated from the scientific school at Cambridge, Mass., in 1853, and entered in 1854 the Ecole Centrale des Arts et Manufactures at Paris, France. Here his career was a brilliant one, and he graduated with a diploma in 1856. It was during this period of study that an American, Richard M. Hunt, was appointed by the French Government an Inspector, and under M. Hector Lefuel designed the Pavilion de la Bibliothéque, opposite the Palais Royal. Mr. Jenney speaks of the great admiration he had for Mr. Hunt at that time, and how much he was influenced in his after-life by the success achieved by Mr. Hunt. During the year 1858 Mr. Jenney again visited France, spending a year and a half in the study of architecture and art. Upon his return to the United States, and upon the breaking out of the Rebellion, he was appointed Captain Additional Aide-de-Camp, U. S. A., and assigned to engineer duty at Cairo, Ill.; served as engineer officer on the staff of General U. S. Grant, from Cairo to Corinth, then at W. T. Sherman's request was transferred to his command and put in charge of the engineer works at Memphis. He accompanied General Sherman as member of his staff on the Vicksburg expedition; was chief engineer 15th Army Corps at the siege of Vicksburg, and continued to serve on the staff of General Sherman until he resigned, May, 1866. In the fall of 1868 he came to Chicago and began his professional career.



His first architectural works of importance were Grace Episcopal Church, Wabash Avenue, near 16th Street, Chicago; the Portland Block, corner of Washington and Dearborn Streets, Chicago, built directly after the Chicago fire, and the Mason Building.

The Chicago office buildings before the fire were poorly built, with many dark rooms, contracted halls, small entrances and few conveniences. Mr. Jenney introduced a change in his first office buildings—the Portland Block and the Mason Building. In these buildings there is not a dark room. The entrances are attractive and the halls commodious and light. The Mason Building is a very good type of the Renaissance style that then prevailed.

Mr. Jenney's most important work, and for which he is best known, is the invention and first application of the skeleton construction, now in such general use for tall buildings throughout the country.

In the fall of 1883 Mr. Jenney was appointed architect for the Home Insurance Company of New York City, and instructed to prepare designs for a tall, fireproof office building, to be located on the northeast corner of Adams and La Salle Streets, Chicago, to be named "The Home Insurance Building," with the further instructions that the

plans above the second story should provide for the maximum number of well-lighted small offices. The instructions further stated that the building committee were aware that this would necessitate very small piers—smaller, probably, than were admissible if of ordinary masonry construction unless, perhaps, in the upper stories.

The architect was requested to report to the building committee the method of construction that would satisfy the requirements for stability and for small piers. It naturally followed that if brick or stone were insufficient to carry the loads on the piers, a material must be provided that would support a greater load per unit of section. Architects had often been obliged to build an iron column into the masonry pier where the load was exceptionally great. Mr. Jenney had done the same thing, building iron columns into the small piers some years before. The natural solution of the problem was to inclose an iron column within each of the small masonry piers, thus satisfying the three requirements, small piers, strength and fireproofing.

The question of a column 150 feet high, under the extreme variation of temperature, say 100 degrees Fahr., or more, from the hot sun in summer to the excessive cold in winter, now presented itself. A solution was soon found by Mr. Jenney, by supporting the walls and floors of each story independently on the columns, thus dividing the total movement into as many parts as there were stories, the expansion and contraction in no one story was of sufficient importance to require special consideration. The drawings were then prepared and the first design for a fireproof skeleton building was made and presented to the building committee of the Home Insurance Company for their acceptance. As business men, they naturally inquired: "Where is there such a building?" The architect replied: "Your building at Chicago will be the first." This naturally suggested the company the very important question: "How do you know it is good?" The architect proposed to submit his designs and calculations to one or more bridge engineers of distinction, as the company might select, the design for the skeleton building resembling, in many respects, iron railroad bridges standing on end, side by side.

The columns in the Home Insurance Building were of cast iron. The riveted columns of plates and angles were at that time thought too expensive. It was in this building that the first Bessemer steel beams were used, manufactured by the Carnegie-Phipps Co., who stated at the time that the Hone Insurance Building was the first in the United States to use steel beams in its construction. It not only introduced the steel skeleton construction to the world, and was the first building in America to use steel beams in its construction, but it also added a long list to the requirements of a fine office building, such as wind bracing, thorough fireproofing, rapid running and safe elevator cars, light and well-ventilated rooms and corridors, fan lights along the coridor side of the rooms, adding to the light of the corridor and to the ventilation of the roons, electric plant, the offices provided with ile vaults handsome in their appointments, a system of plumbing of the highest modern type, a large, elegantly-appointed toilet room on one of the upper floors in constant charge of a janitor, a barber shop, etc. All these appointments are now common to all good office buildings, but they were first used in the West in the Home Insurance Building, and many of them, like the metal elevator cars and the office vaults, were invented by Mr. Jenney for that building.

In 1897 Mr. Jenney received the followng letter, which establishes his claim as the inventor of the skeleton construction:

BESSEMER STEAMSHIP COMPANY.
26 Broadway, New York.
F. T. Gates, President.
February 13, 189'.

Mr. W. L. B. Jenney, Home Insurance Building, Chicago, Ill.

My Dear Sir:—With your permission we shall take pleasure in naming a ship now being constructed for us by Messrs. F. W. Wheeler & Co., Detroit, Mich., the "W. L. B. Jenney," as a mark of our appreciation of your distinguished services in connecton with the invention and introduction of lofty steel skeleton construction of buildings.

Yours very truly,
(Signed) F. T. Gates, Presiden.

Among other prominent buildings built by Mr. Jenney while associated with Mr. Mundie are the following:

Union League Club, Horticultural Buildng at Columbian Exposition, The Fair, Siegel, Cooper & Co.'s store, the Association Building, the New York Life Building, Chicago National Bank Building, the Trude Building and the Fort Dearborn Building.

The last work in which Mr. Jenney was actively interested was the designing of the Illinois Vicksburg Memorial, a monument constructed by the State of Illinois on the battlefield of Vicksburg. Mr. Jenney was naturally very much interested in this work, having taken a very active part in the siege.

At the time the monument was dedicated Mr. Jenney was, unfortunately, too ill to attend. Mr. Mundie took up the work where it was left by Mr. Jenney, and carried it on to a successful completion.

Among the architects and engineers who had early training with Mr. Jenney, are D. H. Burnham, William Holabird, Martin Roche, D. E. Waid, A. H. Granger, H. V. D. Shaw, J. M. Ewen and L. E. Ritter.

In the spring of 1905 Mr. Jenney retired from active practice and concluded to make his permanent residence in Los Angeles. The business has been carried on under the firm name of Jenney, Mundie & Jensen by Mr. W. B. Mundie, who has been associated with Mr. Jenney for twenty years, and by Mr. E. C. Jensen.

THE INTEGRITY OF THE SPECIFICATION

We present herewith a recent ruling of the Supreme Court of the State of New York, relating to the integrity of the architect's specification. The ruling grew out of a suit brought by a contractor and was defended on the ground of failure to obey the specifications. In the trial court the contractor's right to substitute another sash cord for the one called for by the architect was upheld.

The plaintiff testified as follows: "Samson Spot Braided Cotton Sash Cord although called for was not used, but the ——— ——— Cord substituted because as the contractor testified: " 'I never heard of Samson's Cord. I did not know anything in regard to the two different kinds of cord. The kind of cord I use, ——— ———, is considered the best on the market. I did not know anything about Samson's and I know the ——— ——— is good." Another witness called by the plaintiff testified: "That the cord used is good quality sash cord and is the same as is used on the eastern end of Long Island. As compared with Samson I do not know how they would compare in cost." The architect testified that the cord used was not durable and that it was already partly worn out, while that called for in the specifications is strong and durable.

The Supreme Court ruled as follows:

"We have set forth some specimens out of more than twenty admitted failures to comply with the specifications and at the same time have given in substance the reasons of the contractor for the omissions. The contract was not substantially performed in all respects and there is no evidence to support the finding of the trial court that it was. There is no substantial performance when no attempt is made to comply with certain express requirements of the specifications and no excuse or explanation is given for the failure. A contract is not substantially performed by substituting for that which is expressly required, materials, methods of workmanship which, in the opinion of the contractor and his experts are "just as good" unless the substitution relates to a matter of minor importance is made in good faith and for sufficient reasons, and there is an adequate allowance for the difference. The owner has a right to what the contractor agreed to give him, and unless he has it or when the failure is neither wilful nor substantial, is fully compensated for the omission, there is no substantial performance and there can be no recovery. It is not sufficient for the contractor to build a house, but he must build the house contracted for and substantially comply with the specifications as to the method of construction, materials and workmanship before he is entitled to payment. In the case last cited, we said: "The contractor may not deliberately violate his contract by the use of earthen construction instead of iron and small pipes instead of large ones, and yet claim that he has done as he agreed because the result is just as good. Unless the owner had the right to contract for what he wanted and to get what he contracted for, there was no use in making the contract. A building contract like any other is to be fairly performed according to its terms, and any substantial change, unless authorized by the owner or architect, is made at the risk of the contractor. In order to avoid injustice the law tolerates unsubstantial deviations made in good faith, but it exacts full compensation therefor and permits a recovery on the theory of substantial performance only after the proper deductions have been made. The contractor had no right to substitute his own judgment for the stipulations of the contract, or to recover on the basis of complete performance when * * * he wilfully and intentionally used inferior and less expensive materials in the place of those agreed upon."

ART GALLERY FOR PHILADELPHIA

A recent suggestion of Mayor Reyburn, of Philadelphia, has been received with considerable enthusiasm by many citizens. It is that the city shall build a splendid art gallery on the eminence now occupied by the Fairmount reservoir and dominating the western end of Fairmount parkway.

The site is of little value to the waterworks, but of great aesthetic potentiality to the city, while the municipality has in hand a million dollars which can be used only for an art gallery. The Welsbach collection, now in Memorial Hall, would make a nucleus for a permanent collection, and it probably would be easy to secure loans and temporary exhibitions. But in a popular and municipal sense the great gain would be the scenic, in this crown and terminus to the parkway.

CHICAGO LAKEFRONT LEGISLATION

At last Chicago, in the magnificent improvement of the splendid lakefront—to which the last obstacle seems to have been removed—is coming into her own. And when she does, she will have something which in degree can be likened by no other city. Four bills were passed by the legislature in May to make possible the proposed boulevard that is to connect the north and south sides by means of the lakeshore. Two of them gave to the Lincoln and South Park boards respectively authority to issue bonds for its construction, the other two gave the authority for the construction of the elevated structure and its approaches that are to complete the link. The city had already appropriated in the current budget $400,000 for acquiring real estate that would be needed for the purpose. The main credit, it is said, for the preparation of these bills and for effective work in securing their passage was due to the Commercial Club. If so, it is a feather to be long and proudly worn in the Club's cap. In admiration of the spectacular effectiveness of the improvement there has been widely overlooked, by the way, the sociological importance of the fact that on one side, for its whole length, Chicago will be absolutely bordered by a beautiful pleasure ground. To secure, in one short season, the carrying out of these plans and the improvement of her dilapidated old trolley system would seem—even in Chicago—almost too good to be true, did one not realize how long and how tireless had been the preceding efforts.

AN ENTHUSIASTIC MAYOR

Municipal art enthusiasts in Philadelphia have been enjoying a good many surprises in the last few months. The present mayor, who had not been conspicuous as one of their number, gave them the first surprise by running on a city beautiful platform; and consequently when he was elected, municipal art enterprises, long and patiently argued for and written of, began to take visible shape with a rush. The parkway developments are a conspicuous example of this. The prompt enactment of the bill allowing the city to buy property on the edge of an improvement, that the improvement's cost may be at least partially recouped by resale after the consequent advance in value, is another. It all goes to show, as events in some other cities have already shown, that when municipal improvement becomes popular, the politicians will take it up, and then accomplishment will follow upon accomplishment as long as the money holds out. The trouble then will be too much rapidity rather than too much deliberation. In May the City Parks Association of Philadelphia gave a reception to the Mayor—to this pass had things already come; and it was there stated that the half million dollar loan, which had just been created for small parks, was the first dedication of public moneys in a full generation in Philadelphia for open spaces in accord with a general scheme. The Mayor made a rousing speech in reply, presenting many strong arguments for the small parks, and putting himself on record as also favoring an improvement of the Delaware and Schuylkill river fronts.

REVERENCE FOR ANCIENT GLORY

A correspondent of the Boston "Transcript," apropos of a discussion of further changes in the State House, has recorded at some length the measures taken in other countries to preserve ancient and artistic monuments and works of art. Aside from appropriations for the acquisition, preservation, restoration and repair of such remains; and aside from the well known laws of Italy and Greece, against the export of objects of ancient art without government permission—all of which he mentions—various interesting measures are recorded. The Italian government is preparing a general catalogue with descriptions and photographs of all ancient historical buildings. In Greece every person is forbidden to destroy, alter, or repair ruins or any ancient monuments without the special permission of the inspector-general of antiquities, who is authorized to undertake necessary repairs at the expense of the state. In Bavaria the board of trustees of artistic and ancient Bavarian monuments is composed of six members, of whom one is an architect, four are authorities on the history of art, and one is an artist. In

Sweden and Norway the law provides that "all fixed remains which preserve the memory of the ancient architects of the country are placed under the protection of the law and may not be injured or destroyed by the owner of the land" etc. Austria, France, Spain, Belgium, Holland, Switzerland and Denmark have taken action in which the architectural emphasis is only less marked, or they have at least commissions of historians and artists who are held responsible for preserving the remains of the glory of the past.

A PERMANENT PLAN COMMISSION

A bill passed by the Connecticut Legislature in the late spring established a permanent Commission on City Plan for the city of Hartford, and conferred upon it very broad powers. The act, in doing this, established also a precedent, so that other cities in the State may demand a similar commission. The commission is composed, by the act creating it, of "the mayor, who shall be its presiding officer, the president of the board of street commissioners, the president of the board of park commissioners, the city engineer, two citizens, neither of whom shall hold any other office in said city government, one member of the board of aldermen, and one member of the common council"—the two latter being appointed by their respective boards, and the two "citizens" by the mayor. It is required that "all questions concerning the location of any public building, esplanade, boulevard, parkway, street, highway, square, or park shall be referred to the commission" by the common council for "consideration and report before final action is taken on such location." Other matters "may" be referred to the commission, the council may delegate to it such powers as the council deems necessary, and the city acting through the commission may condemn and take any amount of property within its boundaries. Such land as is not needed for the improvements, after they have been completed, the city may resell, "with or without reservations, concerning future use and occupation of such real estate so as to protect public works and improvements and their environs, and to preserve the view, appearance, light, air and usefulness of such public works." The commissioners serve without pay, but their expenses are to be paid, and they may employ expert advice. This gives the most sweeping powers of any act of its kind—and they indeed are few—in the United States. It is exceedingly significant.

RE-PLANNING MONTREAL

There have been published the plans for the improvement of Montreal, as these have been worked out by the Standing Committee on Civic Improvements of the P. Q. Architects' Association. The committee, which was appointed only a year ago, consists of Percy E. Nobbs, incumbent of the chair of architecture at McGill University, chairman, Edward and W. S. Maxwell and J. Rawson Gardiner. The purpose of the committee has been to work out a practicable scheme for the improvement of the existing city-plan, rather than to picture the conditions in an ideal Montreal. The city has a noble site naturally; but in its plan it has the faults of a comparatively old city. It is, in fact, one of the few municipalities in America which still bear the compressing mark of surrounding fortifications. There are, however, some wide thoroughfares, and the committee has been able, by planning short connecting links between these, to lay down continuous avenues that will be adapted to a traffic heavy in volume and in bulk, that will avoid a direct ascent of the steep hills, and that will offer noble or lovely vistas at their ends. Two diagonal thoroughfares are planned from Victoria Square, the most congested center of the city. One runs generally eastward and the other generally westward, the latter, with St. James Cathedral on its axis, passing the station of the Canadian Pacific railroad and thus directly connecting that with the business district. By good fortune it happens to be possible to carry these diagonals through property that is now for the most part vacant, or only poorly built upon. The plans also provide for improved park approaches and entrances, and for a wide street along about a third of the total riverfront. They are modestly put forward, as suggestive rather than final; but the report urges the economy of prompt action.

EUROPEAN GARDEN CITIES

An illustrated pamphlet, only a little smaller than this magazine, entitled "Garden Suburbs, Villages and Homes," has been issued by the Copartnership Tenants' Housing Council of London. It comes from the Garden City Press, Ltd., and is an account of the Garden City and similar enterprises and an appeal for their support. There is considerable in the pamphlet that is of no value to an American, such as letters of appreciation from members of Par-

liament, but there is a good deal more that is of much interest, especially the figures. Statistics, there included, of the movement in Germany are more impressive than those regarding it in England. Not only is much more building land publicly owned in Germany than in England, and not only do the German town authorities have, and exercise, the right of making a general scheme of development for the environs; but every encouragement is given to "Building Societies of Public Utility," as such organizations are there called. The pamphlet declares that a year ago there were 715 of these societies in Germany, with 115,000 members. One of them, in Berlin, had nearly eleven thousand members, 1,654 dwellings, and a capital of £1,250,000. A list of ten existant societies of this sort in England is given, all established within a few years, and it is said that "societies are now contemplated at Birmingham, Berkhampstead, Brighton, Cardiff, Oxford, Swansea and Hampstead." It is interesting to know that at Garden City the following factories are in operation: one for motor cars, one for photographic sundries, an asphalt manufactory, a printers', and a gas fitters'; while in course of construction are a publishers' and a Swiss embroidery establishment, and a site has been taken for a book bindery. Thus the scheme, with all its artistic and sociological possibilities, is by no means visionary, industrially.

CIVIC CENTERS

An interesting suggestion by Ex-Mayor Dunne of Chicago was made in connection with the proposition for a new City Hall. It is that local bureaus be centrally located in the north, west and south divisions. The idea is to include the payment of water taxes and licenses at the bureau stations for the convenience of citizens, maintaining only the principal executive officers in the City Hall. While the convenience of the citizens is the main argument, several incidental advantages suggest themselves. The demand for room in the main City Hall now almost overwhelming in a large city, would thus be very considerably diminished. There would be the less excuse for erecting such structures as Philadelphia's. Though more land might have to be bought, it would be cheaper land than the additional space in the center of the city, where is the main City Hall. That is, the saving in buying a smaller site there would doubtless buy all the land needed for the local bureaus. Finally, these local halls would make easier the formation of neighborhood civic centers—a very desirable outcome. In this connection, it may be noted that a writer in "The Village" a few weeks ago, justly remarking that "the movement for civic centers is as important for towns as for cities," described one at Ashburnham, Mass., as of unusual harmony in development and exceptional utilitarian effectiveness. The buildings are the public library, Cushing Academy and the lately constructed Fairbanks Memorial building, and Adams school. These, "developed with wise care architecturally," are located on a site that has been treated in harmony with them and that makes "a fitting setting for the buildings which figure so prominently in the educational civic life of the village." He says, "the result is in marked contrast with villages which present in their public buildings a scattered architectural medley, with no setting and with no supporting relationship." There is no more encouraging sign, both in its concrete promise and in its evidence of the sanity and worth of the larger movement, than this tendency, now constantly growing, of the small town to follow the lead of the big city in consciously planning for civic beauty.

THE ARCHITECTURAL LEAGUE OF AMERICA

Under date of June 26 we are requested to announce to all architects and members of the Architectural League of America that at the Executive Board meeting, held in Toronto on June 19, the permanent headquarters of the Architectural League were established at 729 15th Street, N. W., Washington, D. C., and that Mr. H. S. McAllister, ex-Secretary of the Washington Architectural Club and now Vice-President of the same, was appointed permanent Secretary of the League. All communications with the League may henceforth be addressed to Mr. McAllister at the above address.

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Some Recent Skyscrapers

We are fond of imagining, or of calling upon others to imagine, the sensations of an old New Yorker if he could revisit the glimpses of the metropolitan moon, now represented by Welsbach burners. Manhattan revisited, even by a visitor of an even generation ago, how it would make him stare and gasp. The aspect even of the oldest and longest-settled part of the island has changed more since 1874 than it had changed in a century, in two centuries, nay, almost in three centuries before. Hudson himself, sailing into the upper bay even so lately as 1874, would have recognized the island which he sighted in 1609. But he would scarcely recognize it now. For the gentle acclivity which then would have greeted him, though so builded and peopled as to show that a great city had displaced the woodland, was not so built up as to disguise the lie of the land. But now the aspect is of a city set on a hill. "Surely," the explorer would now say, "there was no such mountain as that when I was here before." He could account for the apparent topographical change only by supposing a seismic upheaval or the advent of a new geological period.

But there is no occasion for going back centuries or even generations, not even one generation. The visitor who remains out of town or even up-town for a single year, finds down-town transformed in that brief interval and threatening always still stranger transformation. That fabulous time

When Ilion like a mist rose into towers

is realized now and here. It is a kaleidoscopic, a phantasmagoric change, bewildering and stupefying in the mass, with no ensemble but that of universal strife and struggle. "The very buildings," as our English critic has it, "cry aloud of struggling, almost savage, unregulated strength," unregulated by law, unregulated by custom or comity. The skyscraper remains "ferae naturae," not only remains, but monthly more becomes. And yet there is so much "ensemble" even of individualism that the indiivduals are merged in the riot, as in a street in which every shopkeeper tries to make himself conspicuous by his staring sign, and all together frustrate their several intentions. Truly, instead of not being able to see the forest for the trees, you cannot see the trees for the forest. It rquires self-restraint and wilful abstraction and absorption to select and consider an individual among the mob. Still, with the help of a photograph, you may "sit down before" a particular building and try to judge it. And to do this with a certain number of recent and typical instances is the purpose of this paper.

Seniores priores. The "new" Tribune building was the wonder of New York that generation ago of which we were speaking, that and the original Western Union which was under construction at the same time. The wonder mainly by reason of its altitude. Consider that its seven stories and double decked dormers towered over everything. Professor Huxley, visiting these shores three or four years later, took it as an instance of

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Entered May 22, 1902, as second-class matter, Post Office at New York, N. Y., Act of Congress of March 3d, 1879

our utilitarian turn of mind. The two edifices, he said, which rose like Sauls above their fellows, as the visitor steamed up the bay, were not castles or cathedrals or fortress towers as they would have been apt to be in an old-world port, but a telegraph office and a newspaper office. These were the pioneers in which for the first time the change wrought by the passenger elevator was fully recognized in design, and they were designed on quite different theories. In the Tribune building, Mr. Hunt attempted to make groups of stories take the place as members of his composition of the single stories of the earlier and lower commercial building. In the Western Union, Mr. Post anticipated the present convention by which the basement and the roof were distinguished and the stories between were treated with a similarity amounting in effect to identity. The Tribune building mainly suffered, however, from its bichromatic treatment in brick and granite, so applied as almost to give the impression that a building conceived as a monochrome of red had afterwards been patched with gray. The building thus did not do justice to the design. But what would the architect of the original building have said if he had been told at the time of its erection, that, a generation afterwards, and a decade after his own death, it would be found expedient and profitable to double its height, impossible, in fact, to leave it at the old height without falling out of the commercial competition.

Upon the whole, the heightening has been done with tact and discretion. The brick and granite part of the superposition becomes the middle member of the composition. The old building has practically been duplicated in it, and the whole forms a fairly well balanced triple composition. The narrow bay signalized by the entrance at the bottom and the tower at the top, which the original architect introduced as he explained to soften a change of direction in plan, "dissembling thus the irregularity of the front," had a tendency already to spindle and necessarily spindles much more now when the height is doubled. The slender pier, however, which runs from the ninth story to the twelfth, inclusive, seems to spindle unnecessarily and its tenuity becomes rather painful. But the general scheme of the superposition is reasonable and the result effective, and it is very well carried out. The building is architecturally the better for the addition and that is praise that can only infrequently be bestowed. As to the detail, it is all frankly taken from the detail below, excepting the metal work of the dormers which has been substituted, perhaps questionably, for the huge granite frames that were relieved against the former roof. The rebuilder's only care as to the detail was to place it, and this he has succeeded in doing very acceptably.

Doubtless the loudest of the new lions is the United States Realty Building, on the site, more or less, of the Boreel Building. At least, in conjunction with the Trinity Building across the widened alley, down whose dark defile one used to go (eheu, fugaces) to where the hands of "Old Tom" used to "reach"

> To each his perfect pint of stout,
> His proper chop to each.

The twin towers (not chronologically twins, for the northernmore is months if not years the younger) together outroar for a moment the architectural rattle of Broadway and arrest the stranger. Each without doubt profits by the juxtaposition of the other, as the elder profits greatly by its confrontation with the yet older Empire Building across Trinity church yard, counterparting frontages to the effect of which nothing in its kind on this side of the Atlantic, at least, is comparable for instantaneous and irresistible effectiveness. Those confronting arcades alone, embracing each three stories, gain immensely by the similarity of treatment and lose nothing by the diversity of detail, one in Gothic and one in classic. It looks lucky that the same architect had the doing of both, since a succeeding architect of the newer would have been in danger of finding his originality compromised by conformity, which in this case is to say by doing the obviously right thing. The two huge white sheets of front seem fittingly, or as fittingly as any skyscrapers could do it, and even tenderly to frame poor dear



FIG. 1.—THE NEW TRIBUNE BUILDING.
R. M. Hunt, Architect. Newspaper Row, New York. D'Oench & Yost, Architects.
(Photo by A. Patzig.)

old Trinity, not so long ago the "landmark of New York" from the Jersey Hills from which it has long been invisible, to frame it as a relic, or rather as a reliquary, a casket, it seems to say containing precious things, or it would not have been left there with its ample setting of greensward, when its site might have been sold for so many hundreds of pence and given to the rich. And the effect of framing and protecting the relic is enhanced by the latest comer, the United States Express Company's new building at the rear of the churchyard, shortly, no doubt, to be adjoined by another of the same kind, thus completely enclosing on the three sides the open space which enables the construction of the surrounding monsters. The spectacle is an incitement to criticism other than architectural. For, observe that Trinity itself has no part nor lot in the huge profits that its maintenance of the great light-wells of Trinity churchyard and St. Paul's churchyard is making and will make for the riparian owners. *Sic vos non vobis,* the remarkable layman who has charge of the "temporalities" of Trinity may well observe as he remarks the great gains the corporation has renounced in favor of extraneous persons. Verily, "the children of this world are in their generation wiser than the children of light."

But to return to architecture. The new building gains by comparison with its elder neighbor in that its frontage made a symmetrical disposition practicable, and a central crowning feature. But both gain by the conjunction. The turret of the Trinity building looks better as an intermediate than as a terminal feature, though it seems that it would have been well to avoid the competition with it of the tall canopied opening which is the culmination of the later work and which repeats on a larger scale the like feature in the earlier. In fact, on either scale, this feature cannot be said to be its own excuse for being. In neither case does one "see the necessity," and to say that of a conspicuous feature in so grimly a utilitarian building as the skyscraper is is to go near to condemning it. And this stricture applies with still more force to the treatment of the middle part, the "shaft" of the side walls. Not to the north wall of the Realty or even of the Trinity, for neither can really be seen, but to the south wall of the Trinity Building, as to the north wall of the Empire Building, and to the flanking walls of the Manhattan. In each case, it seems to me, Mr. Kimball has taken a mistaken view in undertaking to variegate and diversify the blank monotony of his wall surface, punctured only with "damnable iteration" as he seems to think it of precisely similar openings, and undertaking it to the end that "his uncomely parts have more abundant comeliness." This is particularly, and to me painfully, evident in the south wall of the Trinity Building, more than in the north wall of the Empire, which is equally in full evidence, and in which also it seems a blemish. One can imagine the variegations of the middle wall of Trinity with their Gothic detail, significant and effective, say, in a college building, as distinguishing the staircases from the dormitories. But one cannot imagine any functional differences in the flank of a huge office building, any more than in the cells of a honeycomb. The openings all serve similar purposes, and one cannot make this kind of distinction among them without conveying the sense that it is a factitious and capricious distinction. *Comme il faut,* "as it must be," is the very best impression the architect of a skyscraper can produce with his work. And surely nobody could pretend that these variations make upon him the impression of inevitability. And, moreover, purely as a matter of visual effect preceding any analytic consideration, the mere uniformity and succession, tier after tier, of openings in themselves, or each by itself, insignificant, gains by mere repetition, conveys an effect of extent and expanse which these interruptions and differences tend to confuse and disturb. Note, in contrast, the effect of the arcade at the base in any one of the three buildings. Note it particularly in the north wall of the newest building, though that wall is always in the dark, or at least in a dusk which is scarcely to be regretted since it adds mystery to the indefinite repetition



FIG. 2.—TRINITY ANNEX AND U. S. REALTY BUILDINGS.
Broadway and Cedar St., New York. Francis H. Kimball, Architect.
(Photo by A. Patzig.)

of the same form from end to end. That long arcade of segment-headed openings is bound to make its effect upon any sensitive observer. It is one of the most impressive things not only in the architecture of the skyscraper, but in any architecture one can see. It is the same effect that has been sought and attained by the builders of every building nation from Egypt downward, the simplest and most obvious, but also the surest, and it here testifies anew to the unfailing power in architecture of "uniformity and succession." Upon this, and upon the gorgeous Gothic corridor which corresponds to it in the interior, and in which the architect has succeeded in producing a wonderfully effective piece of architecture without sacrifice or denial of his practical conditions, he is to be congratulated most heartily and without any reserve.

As to the background of the churchyard, or so much of it as is furnished by the new building of the United States Express Company, there is very little to be said. It is so distinctly and exclusively "the regular thing," so palpably, architecturally speaking, neither here nor there. The bottom story, if not more than one, is hidden from view by the elevated railroad. But that concealment was of course allowed for in the design, and one cannot persuade himself that, if it had not been, it would matter. That the architect is a "practical man" serving his client to the best of his ability, and sacrificing no inch of room anywhere to architectural effect, but employing every means of utilizing to the utmost the area and the altitude, all this is not only evident but emphasized. Such a description sounds satirical, but it is not satirically meant. In fact, it is doubtful whether except as the manual of bridge engineering says, "in cases where appearance is imposed as a necessary condition," the designer of skyscrapers could do anything better. Certainly a sacrifice of any practical requirement to "appearance" is not only "bad business," but bad faith and bad architecture. If this building stood where its base was visible, the fettered architect, if he happened to be an artist, might relieve his feelings with a "swagger" entrance, and a piece of sculpture emblematizing the express business. That is, he might do so if he had clearly explained his purpose to his customer, and his customer had consented, as in this case he doubtless would have consented, to "stand for" the irrelevant piece of fantasy, and charge the cost of it to the advertising account. But it would be as inartistic as it would be unpractical for the architect of this structure to advise his client to waste his money or an invisible and virtually subterranean piece of architectural pyrotechny. With the exception of the string courses of the lower stories, about which also there is an architectural neither-here-nor-there-ness, one cannot accuse him, up to the nineteenth, or as it may be, the twentieth story, of diverting a single dollar from business to architecture. Above that point, indeed, "a decent respect to the opinions of mankind" has constrained him to follow the fashion and the convention, to set off the upper three stories by themselves by a strong demarkation from what is below, to include them under arches, and to crown the edifice with a crested cornice. This is, in fact, "the thing itself." How much of a denial it really was, the United Express Company gives no real sign. If he be in fact an artist one's sympathies must go out to him. If he be only, as an eminent practitioner of architecture puts it, "a business man with a knowledge of building," he has suffered no pangs, and will be content with the praise which nobody can deny him of having done his work in a workmanlike manner.

We were saying that this is "the thing itself," that "unaccommodated" skyscraper, as Shakespeare has it of man, is even as this is. But, if one really thinks that this is the skyscraper reduced to its simplest expression, good gracious, let him look at No. 1 Wall Street. Here, if you like, is "the thing itself." The steel frame here is merely covered with the fire resisting brick it practically needs (very good brick it is, by the way, and a credit to the architect's selection). Not only is there no pretence of a masonry construction in any pretended or apparent adequacy of the visible supports to



FIG. 3.—THE UNITED STATES EXPRESS COMPANY'S BUILDING, SHOWING ALSO THE WEST ST. BUILDING IN THE BACKGROUND TO THE RIGHT.

Rector St. and Trinity Place, New York. Clinton & Russell, Architects.

(Photo by A. Patzig.)

carry the visible superstructure. Such a pretence is openly scouted. It is made manifest, so to say, and impressed upon you, that the building is not what it seems, and that if it were what it seems, it could not stand up five minutes, that it would come down by the run, beginning with that rood of plate glass framed with a six-inch copper moulding, that pretends, or rather does not pretend, to carry eighteen stories of brick work. No humbug of "triple division," of composition, vertical or lateral, in short of architecture, about this man. He has put up a trellis of steel frame and just bricked it over, excepting the square holes he had to leave to light the interior. Truly, this is the simplest expression, if you can bring yourself to call it an expression. For seventeen stories there is not a single sign that the designer ever gave a thought to what his work was going to look like. That his intermediate piers were wider than his terminal piers, that his windows were mere square holes cut in the wall, none of these things moved him. But then what a change of heart. Why that shelf above the seventeenth story? That shelf cost money. Why that elaborated and crested frieze? That cost money, too, even though not much, and even though it be, if it be, but of humble sheet metal. And why, oh, why, those amazing obeliscal wreathed pinnacles, making the tower "like a table with all four legs in the air," as Ruskin hath it? It is in vain for him to deny it. That is architecture. At least it is "artchitecture."

To be sure, some man may say about the Royal Insurance Building what we were just saying about the United States Express Company's Building, that it is the regular thing, the most regular of regular things. But it does not follow that some man would have reason. Here, no doubt, is the convention of the skyscraper recognized, recognized and even emphasized in the difference of material, the brickwork of the nine-story shaft marking its difference from the sandstone of the four-story base and of the three-story capital. Moreover, the building has to endure the very difficult confrontation of the John Wolfe Building on the opposite corner, that remarkable "habitation enforced," in which Mr. Hardenbergh was really driven into a bold picturesqueness as the alternative to an uncouth unsightliness, and in which he acquitted himself so well. This present "Royal" is as strictly utilitarian an edifice as the United States Express Company's building. Nobody can fairly accuse the architect of having blinked his problem or humbugged his client. But he had his advantages, his advantages over the designer of the other. He had for instance, the advantage of showing his building to the bottom, and of exhibiting such special purpose as it derives from its name and proprietorship, in the bit of emblematic sculpture at the entrance. This is not here, as it might have been in the other case, the contest of the Centaurs and the Lapithae, the Plattites and the Odellites. It resolves itself into the ancient and even matranserine legend of

> The Lion and the Unicorn
> A fighting for the Crown.

But the heraldic "supporters" of the British Royalty of which the doggerel gives a childish view, do in fact, like most heraldic devices, lend themselves to decorative uses. In the present instance they do relieve what would otherwise be what the irreverent might call the equally childish doggerel of the alternation of metopes and triglyphs below. By design, scale and situation, they do supply a "feature" to the entrance, and do tend to relieve the necessary prosaism of the superstructure. The fact that the superstructure is evidently and avowedly, as evidently and avowedly as in the Express Company's building, "a cold business proposition," does not interfere with the little touch of interest added by this, nor does this interfere with that. Nobody is going to get any artistic thrill in particular out of this "Royal" building. But, on the other hand, nobody is going to dispute that its author has "connaissance des choses," and shows himself aware of the condition under which he is working. The building, upon the whole, is a quite impeccable example of the current fashion in tall buildings, if it be nothing more. And, truly, it is rather more.



FIG. 4.—NO. 1 WALL STREET, NEW YORK.
Broadway and Wall St., New York. Barnett, Haynes & Barnett, Architects.
(Photo by A. Patzig.)

There has evidently given some consideration to the proportions, to the choice and apportionment of material, to the scale and the design of the detail. It



FIG. 5.—THE NEW QUARTERS OF THE ROYAL INSURANCE COMPANY.
William St. and Maiden Lane, New York.
Howells & Stokes, Architects.
(Photo by A. Patzig.)

may be, as Baillie Jarvie said about Rob Roy, "ower bad for blessing," but it is surely "ower gude for banning."

No. By the same architects is offered solution of a very different problem. The problem here is not to give respectability, and if possible, distinction, to the common skyscraper, intended to meet the commonest, not to say vulgarest, of human needs, the need of making a living, the only possible purpose for which any human creature would hire quarters in the Royal, or in any other skyscraper. The problem is now to signalize an "institution," as distinguished from a beehive. And it is to distinguish the institution above the flanking beehives which have the advantage of it in actual altitude, and, in the language of Artemus Ward, one of whom it is also which. For it stands to reason that there is a good deal of rentability behind the frontage of the Title Guarantee and Trust Company. All the same, its flankers do overtop it, and something had evidently to be done to enable its eight stories to hold their own against their loftier neighbors. Obviously this something had to be done by "scale." And almost equally obvious, given the necessity of scale, was the expedient of the "colossal order" including five stories of the building itself, and equalling five of the flanking buildings. If that, in fact, was the purpose, it has been attained. The institution would not be killed by the beehives if half a dozen more stories were added to each of them. And, although the "institution" by no means expresses and expounds the skeleton construction, and might, perhaps, be quite as it is in appearance if it were a building of masonry, yet it does not deny the construction as many buildings do which are far more representative of the skyscraper. Let us congratulate the architect on a client who "stood astonished at his own moderation" in stopping at eight stories. But let us also congratulate the client upon his architect.

And here is the new Stock Exchange, which has been so much written about that one would not think of writing about it again if the photograph did not happen to be included in one's "list" and to lie before one. But it is of interest in connection with Fig. 7 as exemplifying the same problem, likely hereafter to present itself more frequently than hereto-

fore, the problem of giving dignity to a building which by the conditions cannot compete with its neighbors in altitude. The resource which Mr. Post availed himself of so long ago in the Produce Exchange was to surpass his neighbors in altitude, as well as in other dimensions of magnitude, by adding several stories of rentable offices to the institution he was housing. The effort was not wholly successful even then, when of the two factors of the tall building, only the first, the passenger elevator, had come in, and the second, the steel frame, had not been developed. Even in the Produce Exchange there is a confusion as to what is monument and what is "business," and even whether the big hall or the little office is "the pig that pays the rint," a confusion much to the architectural disadvantage of the edifice. But now that the second factor is operative, the insti-



FIG. 6.—DETAIL OF ROYAL INSURANCE BUILDING.
William St. and Maiden Lane, New York. Howells & Stokes, Architects.
(Photo by A. Patzig.)



FIG. 7.—TITLE GUARANTEE & TRUST COMPANY.
176 Broadway, New York. Howells & Stokes, Architects.
(Photo by A. Patzig.)



FIG. 8.—LOOKING SOUTH ON BROAD ST. FROM WALL, SHOWING THE STOCK EXCHANGE, COMMERCIAL CABLE AND BLAIR BUILDINGS.

The Financial District, New York.

(Photo by A. Patzig.)

tutional building is evidently taken out of the competition, since one cannot "build to the limit" without hopelessly submerging the institution. Between that rowdy Cable building, which I remember once seeing described in these pages as having the air of having a cigar in its mouth, and the less aggressive, in fact the rather platitudinous, but distinctly altitudinous edifice on the north, a very emphatic horizontal extension was needed to enable the "institution" to hold its own, especially since it had been wisely determined that the institution should be the only occupant of its own premises. It must outscale the buildings which overtopped it. Here, too, the obvious and natural means of giving scale was the employment of the colossal order, the order in this case including four of the stories alongside, and, as in the other, really constituting the structure of the building and not a mere applied ornamentation. With this colonnade, and with the sculpture of the pediment, which unfortunately does evidently constitute a mere applied ornament, there is no danger that the Stock Exchange will not continue to hold its own, whatever may come to adjoin or to confront it.



FIG. 9.—THE SELIGMAN BUILDING.
William and South William Sts., New York.
Francis H. Kimball, Julian C. Levi, } Associated Architects.
(Photo by A. Patzig.)

The Seligman Building, corner William and South William streets, is a rather frightful example of the unwisdom of trying to variegate and diversify the accepted type of skyscraper, especially by an architect whose work indicates that his forte lies much rather in conformity than in innovation. Indeed, he could not quite have done the "regular thing" in any case, since the regular thing involves either a parallelopiped or, architecturally, a mere flat front, and he had a site apparently with an "acute" angle, though this one is blunt, so blunt that it may possibly be a right angle. If so, he is to be congratulated so far upon rounding the arris, and giving himself a "feature." Unfortunately, he has done nothing with his feature. Up to the eighth story, to the top of the shaft, the treatment of the walls is of distinct neither-here-nor-there-ness, excepting this rounded angle, which it seems that a sensitive designer would have made as solid as possible. Perhaps he could not diminish the size of his openings. But one cannot easily forgive him for having increased that at the bottom, where, precisely, the eye requires the greatest sense of solidity, and where is, in fact, the largest opening on the ground level, the prin-

cipal entrance alone excepted. And what strange vagaries he wanders into when he comes to the top. From the ground up to the eighth story the form and treatment prefigure a turret, or at least a pinnacle. One can imagine a highly effective crowning feature of that kind. But what sort of preparation is it for a lantern or a pinnacle actually to withdraw the wall below it, for two stories, into a reëntrant angle, truncated at that, so as to provide a visible want of support for his solid turret above? This is mere mindless caprice, mere amentia, "Amentia Americana," too, one is sorry to have to own. It is the rural carpenter's notion of "something fancy" done in durable and costly stone.

Truly, it seems that superfluities and arbitrarinesses are more explicitly excluded from the skyscraper than from almost any other kind of building. To be sure the caprice we have been noticing is so capricious that one is entitled to call it silly, and is, besides, very ill done. But in cases in which it would be unjust to apply so harsh a criticism as that, cases in which artistic architects are concerned, whom one would not and could not treat otherwise than respectfully, some of the cases, in fact, which we have already passed in review, does it not seem that in the architecture of the skyscraper, as Martin Van Buren said about politics, "whatever is entirely superfluous ought to be avoided?" Does not the skyscrap-



FIG. 10.—DETAIL OF SELIGMAN BUILDING.
William and South William Sts., New York. Francis H. Kimball, Julian C. Levi, Associated Architects.
(Photo by A. Patzig.)

er gain by the closeness of its adherence to logic, and suffer by every departure from the same? Like good engineering, is it not at its best when it is a "graphical demonstration," an "art of science," as Paul Bourget said about the tall buildings of Chicago? So it seems. So it

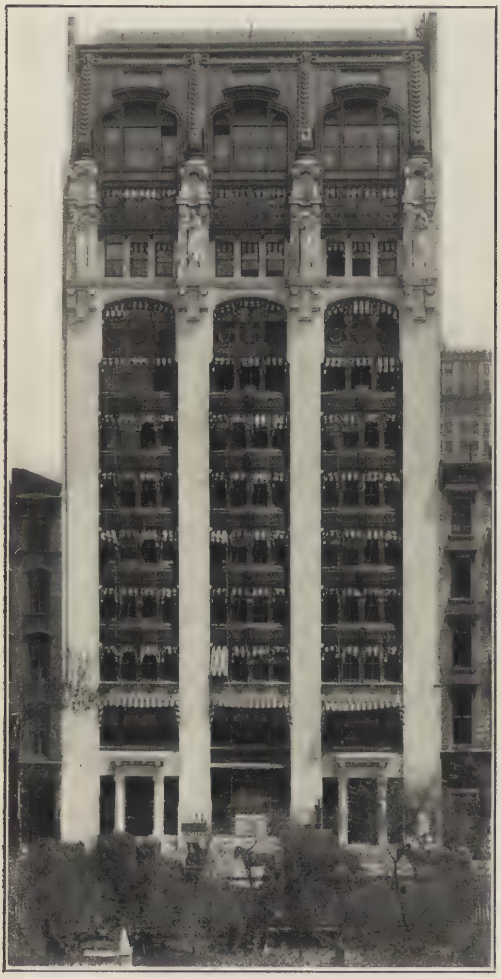


FIG. 11.—THE EVENING POST.
Vesey St., New York.
Robert D. Kohn, Architect.
(Photo by A. Patzig.)

particularly seems when we come upon a building designed upon these principles, always and primarily given, of course, that it was designed by an artist. Such, eminently, is the new building of the Evening Post, architecturally a mere flat front, but with the great advantage of fronting, not a mere street, still less a mere canyon, but the broad greensward of St. Paul's churchyard, which the renouncing corporation of Trinity has gratuitously put at the service of the exploiters of Mammon. This, one may fairly say, is "the thing itself," the "skeleton," hardly draped, but articulated, developed and decorated in accordance with the facts of the case. There is no mistaking what it is or how it is put together. Instead of being concealed and confused, the essential structure is so emphasized that the spectator understands it better than he would have understood the mere steel frame before the architectural treatment of it was begun. The differentiations are not fantastic, but, at least in appearance, functional. One supposes, for instance, that the uppermost story, with its great openings, belongs to the composing room, and that the whole "capital" denotes the abode of the newspaper which is so eminently an "institution," while the architectural base is confined to the single story which alone is really differentiated from the office building that occupies the "shaft." Of course all this might be as logical and yet be ugly, instead of being as it is, highly artistic and effective, by reason of the skill of the architect in his emphasis and his subordinations, in the successful study he has given to the design and to the placing of his detail, in the artistry of his sparing decoration. But can one imagine an equal architectural success attained by the process of slurring or suppressing the facts instead of bringing them out, by the introduction of features and variations unfounded in fact, as by this strictly "realistic" treatment of the thing he had to do. However that may be, it will not be disputed that the new building of the Evening Post is one of the best things in our recent street architecture, one of the most exemplary and interesting of the skyscrapers.

Montgomery Schuyler.

A New Type of City House

The house is on the north side of Fortieth Street, one hundred and fifty feet east of Park Avenue. The lot is 29 ft. wide and 98 ft. 9 in. deep. The exterior is of red brick and white marble, the latter used very sparingly. See Fig. 1. The desire was to make the exterior indicative of modest comfort and good cheer. The windows were made large so as to admit an abundance of light and sun, and the white marble was used to enliven the otherwise sombre monotony of the brickwork.

The arrangement of the shutters is unusual, as may be seen in Fig. 2. The window openings are five feet wide, and the shutters are made in six leaves, three on a side, which fold together and are entirely received in pockets in the brickwork of the jambs. When opened out the shutters lie in a plane four inches from the face of the wall; they have fixed slats in the upper division of the four central panels. As there is quite a space between the shutters when closed and the window frame, the transoms of the windows, which are hinged at the top and swing out, can be opened when the shutters are closed and air admitted without much light.

The most unusual feature of the house is its entrance and garage. In this respect it is probably the first one of a class which will multiply greatly in the future, for it affords a practical demonstration of the possibility of combining with the ordinary city house a garage, the need for which is daily becoming more urgently felt.

Fig. 2 shows the wrought iron entrance gates to the porte cochère. The garage is on a lower level than the street, and a large lift, operated by an electric motor, is used for raising and lowering automobiles. Fig. 3 is a view in the porte cochère showing the automobile on the lift; the entrance to the house from the porte cochère can be seen on the left (see Fig. 12, plan of ground floor). Fig. 21 is a view from the porte cochère looking into the stair hall through this entrance.

The garage is on the rear of the lot and is entirely separated from the house (see Fig. 11, plan of basement). The building regulations require that 10% of the area of the lot be left vacant, but there is nothing to hinder one building on that area below the level of the curb, and this is where the garage is placed. It was at first intended to confine the garage entirely to the vacant space on the lot occupied by the house, which would have answered very well for electric automobiles, but would not in this case have been large enough for gasoline cars. To provide space for two or even three cars the garage was extended across the end of the adjoining lot, providing a room 16 ft. wide by 36 ft. long. It is lighted by skylights.

Fig. 7 is a view in the garage looking east, and Fig. 8 is a view looking towards the automobile lift. The entrance from the street can be seen in the distance at the higher level. The fireproof door to the left is to the gasolene pump room. The gasolene tank is below the floor, and is covered with two feet of concrete. The filling pipe is similarly protected and leads to the curb. There is no connection between the house and the garage except through this passage leading to the porte cochère, which is cut off from the garage both by swinging fireproof doors, which can be seen in the photograph, and by the automatic fire door seen at the right of the picture. Thus protected, the insurance rate on the house is not affected by the garage. The house is fireproof throughout; as its construction complies with all the rules of the Fire Underwriters, the lowest rate applies to it.

One enters the stair hall from the porte cochère, as shown in Fig. 21. To the right, under an arch which carries the stairs, are a number of doors concealed in the paneling. One of these gives access to a watercloset; one to a short passage leading to the servants' hall, which is on this floor; and another to the automatic passenger elevator. (See Fig. 12, plan of ground floor.)



FIG. 1. RESIDENCE OF ERNEST FLAGG, ARCHITECT.

Under the stair landing is a place where ladies may leave their wraps; this is shown in Fig. 5. Fig. 4 is a view in the hall looking towards the reception floor of the hall. The staircase is broad and easy; it is 5 ft. 6 ins. wide; the treads are 14 ins. deep, and the risers 5½ ins. high.



FIG. 2. RESIDENCE OF ERNEST FLAGG, ARCHITECT—DETAIL OF LOWER STORIES.
40th St., near Park Ave., New York.
(Photo by A. Patzig.)

room. The latter is entered from the first landing of the staircase; the floor being three steps above the level of the

The reception room measures 18 ft. x 19 ft. (see Fig. 12). As in the hall, the woodwork of this room is natural cherry,

waxed. The panels are filled with blue silk moire; the same material is used for the curtains and valances. Fig. 18 is a view from the entrance looking toward the street, and Fig. 24 is a view looking towards the entrance.



FIG. 3. RESIDENCE OF ERNEST FLAGG, ARCHITECT—PORTE-COCHERE, SHOWING AUTOMOBILE ON THE LIFT.

40th St., near Park Ave., New York.

(Photo by A. Patzig.)

Before going upstairs, let us take a look at the service portion of the house. We enter the servants' hall or dining-room from the stair hall through the passageway at the side of the passenger elevator. (See Fig. 12.) Fig. 9 is a view taken in this room looking north. Its dimensions are 15 ft. x 27 ft. The clock is a master clock connected electrically with all the clocks of the house, which are operated by it.

The kitchen is smaller than is usual,



FIG. 4. RESIDENCE OF ERNEST FLAGG, ARCHITECT—THE HALL, LOOKING INTO THE RECEPTION ROOM.

40th St., near Park Ave., New York.

(Photo by A. Patzig.)



FIG. 5. RESIDENCE OF ERNEST FLAGG, ARCHITECT—LADIES' WRAP ROOM UNDER GROUND FLOOR STAIR LANDING.

40th St., near Park Ave., New York.

(Photo by A. Patzig.)

the house being planned on the theory that the kitchen should not be used as a sitting room for servants. It measures 10 ft. 3 ins. x 27 ft. It has been found large enough for its legitimate uses. It is lined from floor to ceiling with white tile, and is lighted by windows on its east side. Adjoining the kitchen, but not opening directly from it, is the larder. (See Fig. 12.) The servants' watercloset on this floor is entered from the yard. One flight of stairs at the southerly end of the servants' hall leads to the basement; another starting from the passage by which we entered connects with the servants' staircase to the top of the building, and another at the northerly end of the kitchen leads to the pantry and to the butler's room over the pantry.



FIG. 6. RESIDENCE OF ERNEST FLAGG, ARCHITECT—GROUND FLOOR HALL, LOOKING INTO THE LIVING ROOM.
40th St., near Park Ave., New York.
(Photo by A. Patzig.)

If we descend the stairs to the basement we find ourselves in the machine room. (See Fig. 11.) Here are located the passenger elevator machinery, the

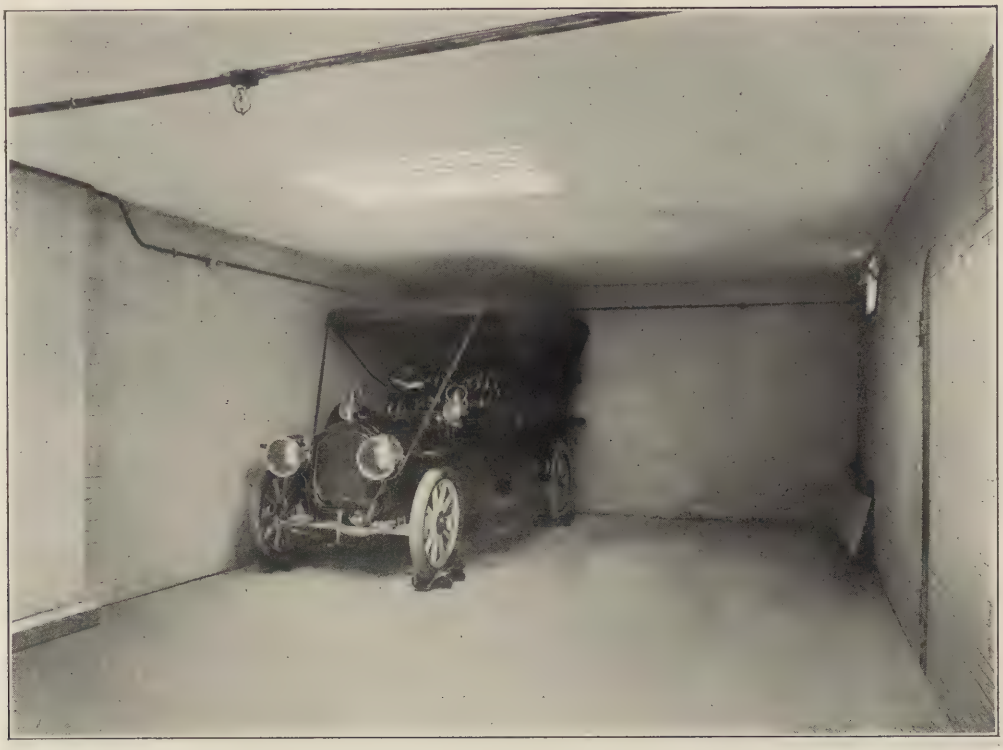


FIG. 7. VIEW IN THE GARAGE, LOOKING EAST.



FIG. 8. RESIDENCE OF ERNEST FLAGG, ARCHITECT—VIEW IN GARAGE, LOOKING TOWARD AUTOMOBILE LIFT.

40th St., near Park Ave., New York.

(Photos by A. Patzig.)



FIG. 9. SERVANTS' DINING ROOM.



FIG. 10. RESIDENCE OF ERNEST FLAGG, ARCHITECT—PANT RY.
40th St., near Park Ave., New York.
(Photos by A. Patzig.)

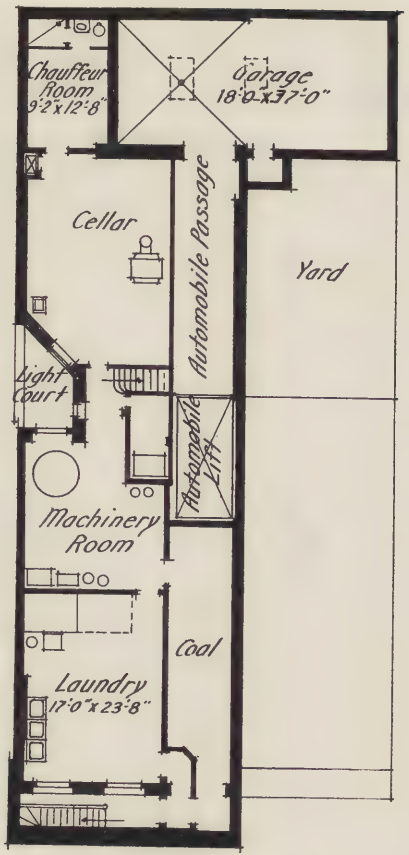


Fig. 11. Basement Plan.
40th St., near Park Ave., New York.

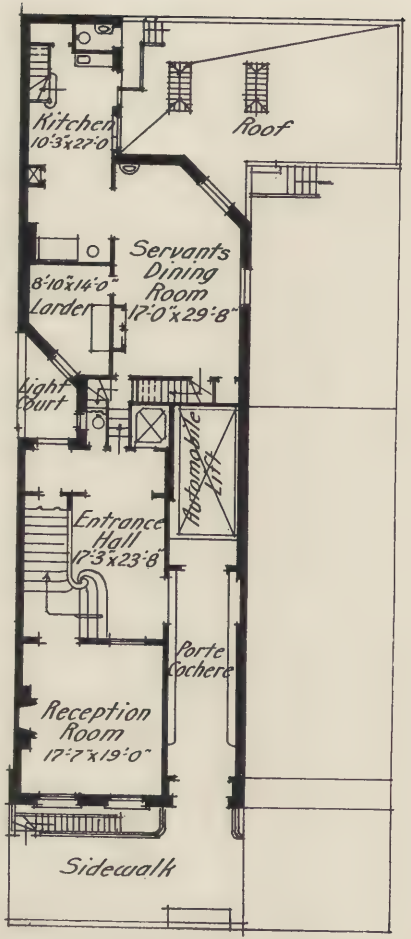


Fig. 12. Ground Floor Plan.
RESIDENCE OF ERNEST FLAGG, ARCHITECT.

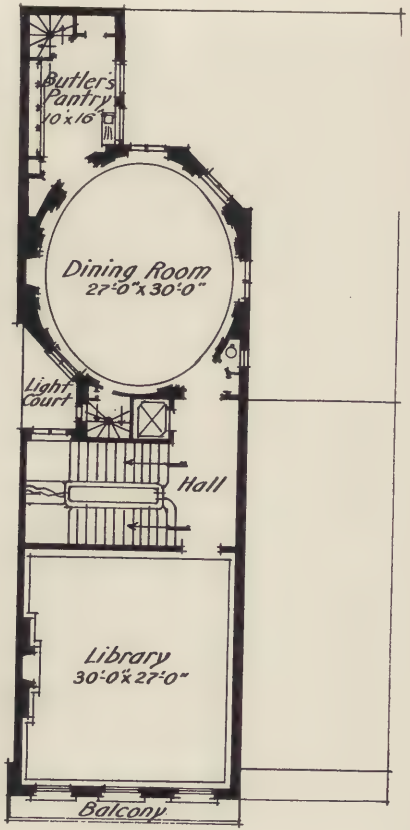


Fig. 13. First Floor Plan.

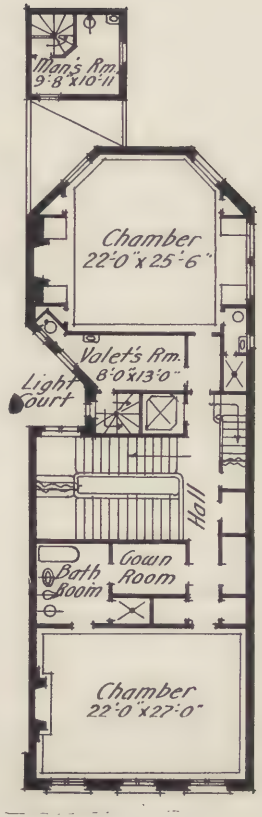


Fig. 14. Second Floor Plan.

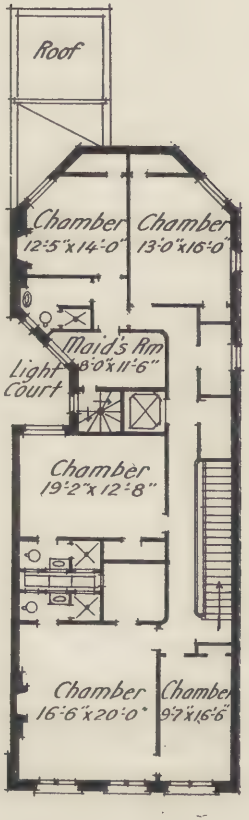


Fig. 15. Third Floor Plan.

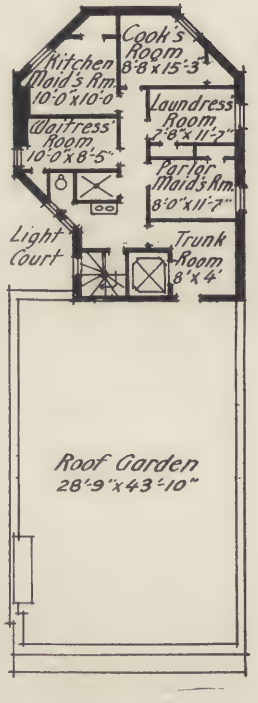


Fig. 16. Fourth Floor Plan.

RESIDENCE OF ERNEST FLAGG, ARCHITECT.

40th St., near Park Ave., New York.



FIG. 17. RESIDENCE OF ERNEST FLAGG, ARCHITECT—THE DINING ROOM.
40th St., near Park Ave., New York. (Photo by A. Patzig.)



FIG. 18. RESIDENCE OF ERNEST FLAGG, ARCHITECT. THE RECEPTION ROOM, LOOKING TOWARD THE STREET.
40th St., near Park Ave., New York.



FIG. 19. RESIDENCE OF ERNEST FLAGG, ARCHITECT—DETAIL OF MANTEL IN DINING ROOM.

(Photos by A. Patzig.)



FIG. 20. RESIDENCE OF ERNEST FLAGG, ARCHITECT—DETAIL OF LIVING-ROOM MANTEL.

40th St., near Park Ave., New York.



FIG. 21. RESIDENCE OF ERNEST FLAGG, ARCHITECT—VIEW INTO STAIR HALL THROUGH MAIN ENTRANCE.

(Photos by A. Patzig.)



FIG. 22. RESIDENCE OF ERNEST FLAGG, ARCHITECT—VIEW IN THE LIVING ROOM, LOOKING NORTH.



FIG. 23. RESIDENCE OF ERNEST FLAGG, ARCHITECT—CHAMBER ON SECOND FLOOR. 40th St., near Park Ave., New York.



FIG. 24. THE RECEPTION ROOM, LOOKING TOWARD THE ENTRANCE.



FIG. 25. RESIDENCE OF ERNEST FLAGG, ARCHITECT—CHAMBER ON SECOND FLOOR. 40th St., near Park Ave., New York.

(Photos by A. Patzig.)

vacuum sweeping plant, the filters, the house pump, the thermostatic regulating pump and one of the heaters. The heating arrangement is somewhat peculiar. There are two distinct systems, each calculated to supply half enough heat for the coldest weather. One is a hot water system whose pipes go to all the rooms, bathrooms and corridors, and the other is a hot air system, with ducts to the principal rooms and to smoke flue with brick as is usually done, the flues were arranged in groups of three, separated from each other by iron plates. The central flue in each group is one which is constantly heated, such as that for the kitchen range and laundry stove, or the furnaces. The outside flues in each group of three serve for the open fireplaces in the various rooms. As the fireplace flues are thus kept heated by the heat from the central flue radiated



FIG. 26. RESIDENCE OF ERNEST FLAGG, ARCHITECT— CHAMBER ON SECOND FLOOR. 40th St., near Park Ave., New York.
(Photo by A. Patzig.)

the halls and corridors. In mild weather the hot air furnace is used alone. In more severe weather, the hot water system is used alone. In very cold weather both are used. During the past winter it was found necessary to use both systems only on four or five days. The coal consumption was remarkably little for a house of this size. Another peculiarity of the house is its automatic ventilation by means of waste heat. Instead of surrounding each through the iron plates they work automatically all the time, and each open fireplace becomes a ventilator with a constant up-draught whether there is a fire in it or not.

But let us return to the machinery room in the basement. The smoke pipe of the hot air furnace in this room goes up through the ceiling into a space under the main staircase on the floor above, through which it is carried horizontally to its flue. The heat which it radiates is

used for warming the main stair hall. It is surprising how much heat that is usually wasted is saved by this contrivance.

To the north of the machinery room is the cellar, containing the heater of the hot water heating plant. The smoke pipe from this heater is also carried through the ceiling into a drum in the servants' hall, seen in Fig. 9. Thus part of the heat which is usually wasted serves to heat that room, and the rest passes on to operate its share of the ventilating system. The chauffeur's room on this floor adjoins the garage, although not connected with it. It is lighted by windows over the top of the garage. It has its own shower bath and toilet room. The front basement room south of the machinery room is the laundry. The floor, like those of the kitchen, store-

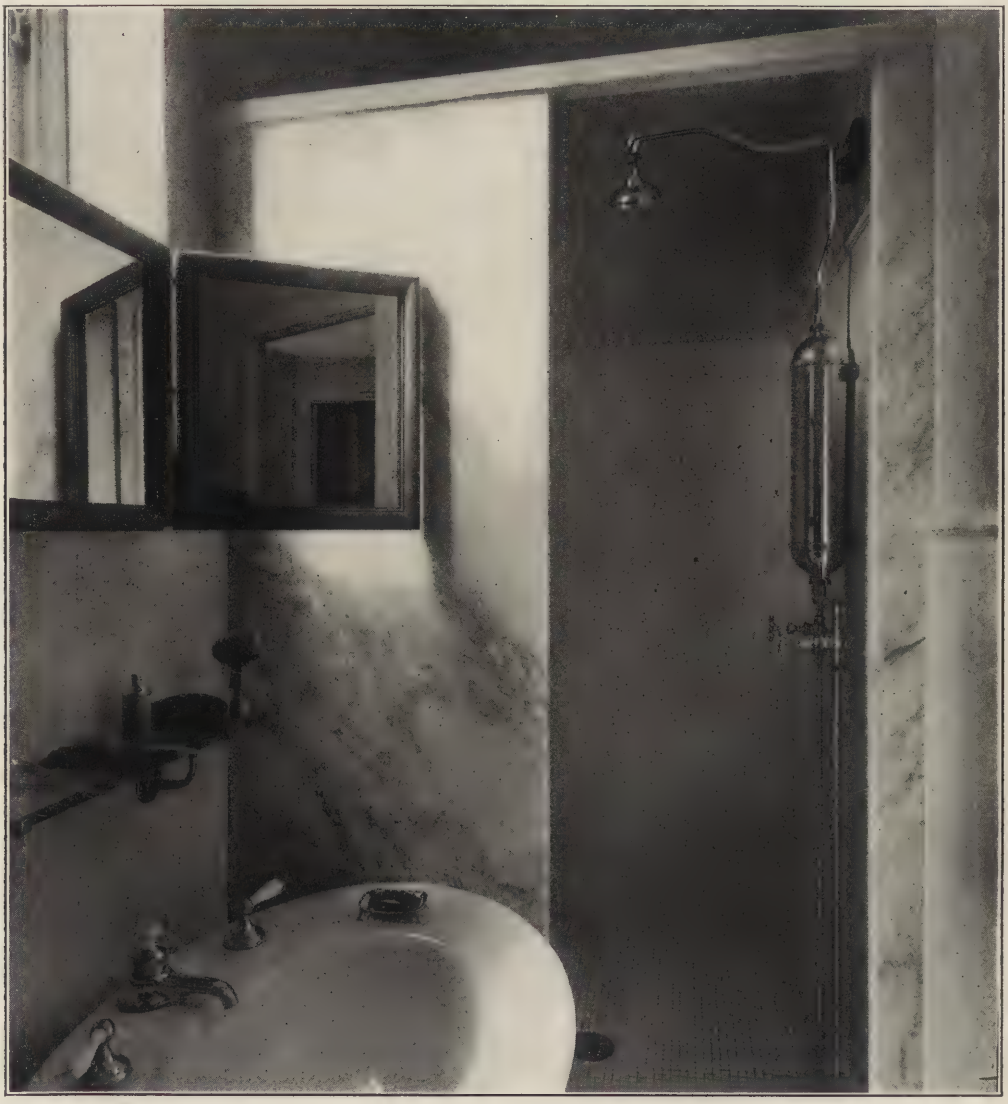


FIG. 27. RESIDENCE OF ERNEST FLAGG, ARCHITECT—BATH ROOM, SHOWING RAIN BATH.
40th St., near Park Ave., New York.

room, servants' hall and butler's pantry, was put down in a plastic state, has no cracks and is coved to meet the plaster of the walls, thus eliminating sharp corners and all places where vermin could lodge. The coal storage space is under the porte cochère.

Now let us return to the main hall on the ground floor and ascend the stairs or take the elevator to the first floor landing. Fig. 6 is a view from here looking into the living room. The floor of this landing has a stone border; the panels are filled with red plastic flooring. Like the hall below, the walls are of Caen stone. The entrance to the living room is to the right as one reaches the landing. This room measures 27 ft. x 30 ft.; the ceiling is 15 ft. high in the clear. The woodwork is of natural cherry, waxed, and the wall panels of yellow silk damask, which is also used for the curtains and valances. Fig. 22 is a view looking north, and Fig. 20 a detail of the mantel. The two narrow panels on the east and west sides are filled with embossed japonise paper.

The dining-room, which is entered from the other side of the landing, has the same extreme dimensions as the living room, being 30 ft. long and 27 ft. wide. Its plan is a true ellipse. (See Fig. 13, plan of first floor.) Fig. 17 is a view looking northwest from the entrance. Fig. 19 is a detail of the fireplace. The woodwork, like all that heretofore mentioned, is of natural cherry, waxed, and is very pleasing in tone. The pilasters and mantelpiece are of a black marble with white streaks, called noire veine. The capitals of the pilasters and the festoon above the mirror are of a dull gold bronze, and the wall panels are filled with japonise embossed paper of the same color. The curtains are silk, of a general reddish tone. The floor is peculiar and probably the first one of its kind. The diagonal strips dividing the surface into panels are of oak and the panels are filled with red composition flooring, which, like the wood, takes a high polish with wax. It makes a very handsome floor. Fig. 10 is a view of the pantry.

Let us now go to the second floor. As will be seen by the plan, there are but two main rooms on this floor. The front room has three windows on the street; its dimensions are 22 ft. x 27 ft., and the height of the ceiling is 12 ft. in the clear. Here again we have cherry wood left in its natural color, with no other treatment than a coat of wax. The wall panels are of pink silk moire, and the curtains of the same material. The fireplace is of pink Numidian marble. Fig. 26 is a view looking west, and Fig. 25 is a view looking east.

The other chamber on this floor, which is illustrated in Fig. 23, measures 26 ft. in extreme width, and 25 ft. in extreme length. The walls and woodwork are covered with French gray enamel. The hangings and furniture coverings are of old rose damask.

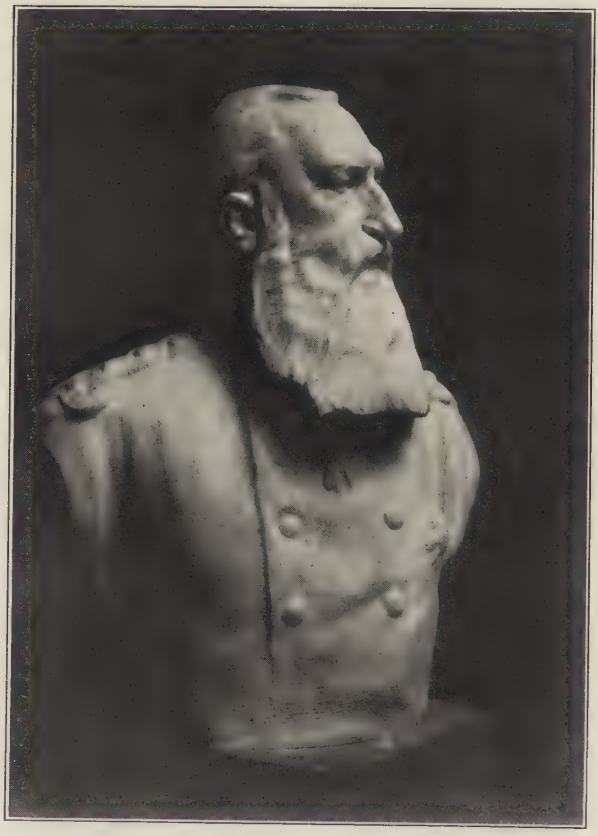
On the third floor there is nothing worthy of special note, unless it be the arrangement of the bathrooms, which is somewhat unusual. (See Fig. 15, plan.) Throughout the house, except in one case, rain baths have been used instead of tubs. They are much more satisfactory than tubs when one has once become accustomed to them, and they permit of a more economical arrangement of space, as can be seen in the two southern bathrooms on this floor. Fig. 27 shows one of these shower or rain baths.

A fourth story extends only over the rear portion of the house; it contains five rooms for female servants, with the necessary toilet accommodations and a rain bath. (See Fig. 16). Over the front portion of the house at this level is the roof garden, a very desirable feature, especially where there are children. It is of easy access by means of the elevator, which runs to this floor.

The hardware throughout the house, including the servants' quarters, is French, and has been found most satisfactory, being artistic in appearance, perfect in workmanship, and no more expensive for the cheaper grades than our own imperfect ugly productions.

The Master-Builder of Brabant

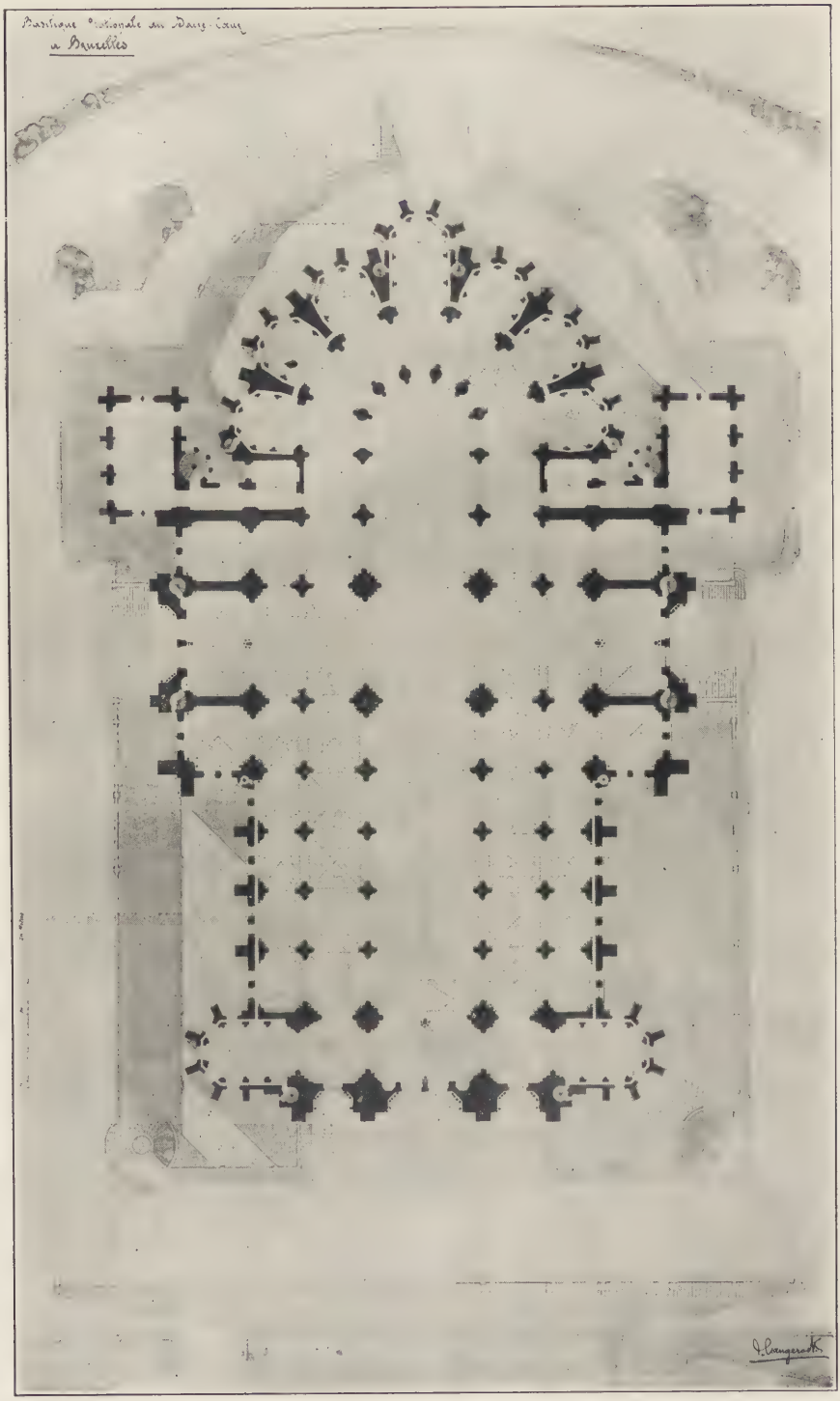
In the Parc du Cinquantenaire, in Brussels, on the right as you enter it from the Rue de la Loi, there is a group in bronze which bears the somewhat florid title of "The Builders of Cities." It represents two workingmen in extreme attitudes of fatigue; one of them in a sitting posture with his weight thrown heavily forward from his hips, and partly supported by his arms under bulging shoulder blades, and the other stretched beside him in the sleep of exhaustion.



LEOPOLD II., KING OF THE BELGIANS.

An authority in matters of craftsmanship might note in the group the influence of Constantin Meunier and see a straining after those effects of bodily power molded to special forms of labor which the great student of the Belgian proletariat knew so well how to describe; but an observer less engrossed in matters of technique would probably feel at once the inappropriateness of the title. He would wonder why the lowliest among all the laborers who form that clan, "The Builders of Cities," should have been chosen to represent it. And he would seek in vain in the rugged mass for a symbol whereby to conjure before him draughtsman with tee-square and compass, engineer with slide-rule and tables, the decorator sketching in the choir of the Cathedral at Amiens, in Farrara, in some old country-house of England and architects sitting in committee resolving dreams into realities.

But did such a symbol indeed exist to give a fillip to the imagination of the loiterer, he would see, dominant above all the builders who have beautified Brussels in recent years, the figure of King Léopold II. Of the great builders of modern times one figure only, that of King Ludwig II., of tragic memory, challenges comparison with the Brabant monarch. But Ludwig's creative genius was cultural, not to say stereotyped. King Léopold's is eminently catholic. The drowned swimmer of the Starnberg Lake has left as a legacy to his people his houses of dreams. King Léopold will leave behind him more than palaces. These are important and often admirable, and yet it is not through them that he has won his way into the hearts of his subjects. Walloons and Flemings have come to know King Léopold as a builder, desirous, above all, of satisfying their architectural needs, of anticipating



THE CATHEDRAL OF KOEKELBERG—PLAN.

Brussels, Belgium M. Langerock, Architect.



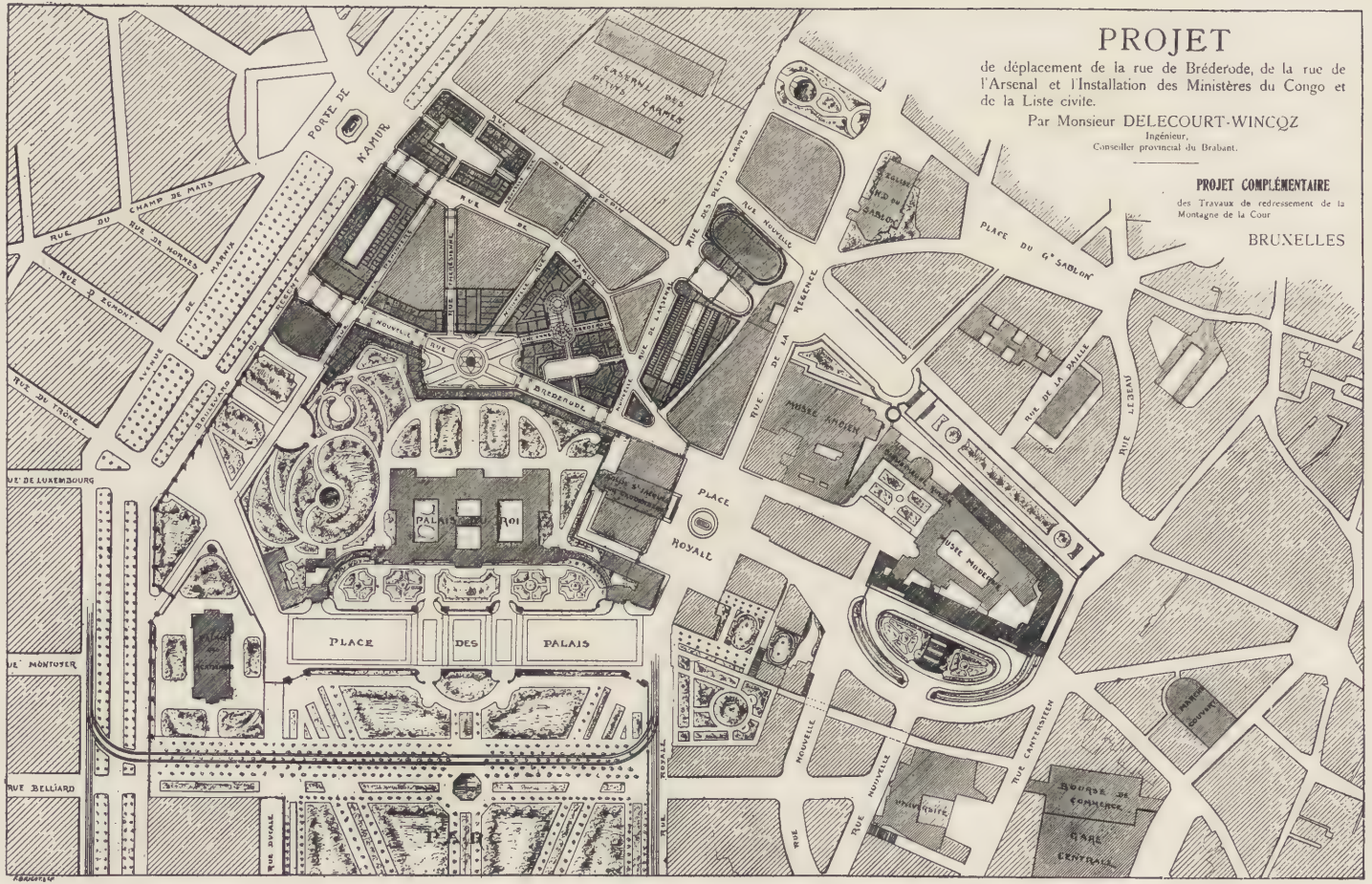
THE CATHEDRAL OF KOEKELBERG—FRONT ELEVATION.
Brussels, Belgium. M. Langerock, Architect.



THE CATHEDRAL OF KOEKELBERG—SIDE ELEVATION.
Brussels, Belgium. **M. Langerock, Architect.**



THE CATHEDRAL OF KOEKELBERG—REAR ELEVATION.
Brussels, Belgium. M. Langerock, Architect.



THE PROJECTED TRANSFORMATIONS IN THE VICINITY OF THE PLACE ROYALE, BRUSSELS, INCLUDING THE MONT DES ARTS.



Brussels, Belgium. THE COLONIAL MUSEUM AT TERVUEREN, MAY, 1907.

their half-formed desires. His constructions are always effective, generally happy, rarely simply things designed to give him personal pleasure. Their number is astonishingly large, and the sum of his annual expenditures upon them enormous. Yet his expenditures cannot form a basis on which to gauge his activity. The King is an opportunist who is also in a position to create opportunities. He does not spend vast sums for the beautification of Brussels without seeing to it that Brussels or the national government bears its share of the burden. And he is not above forcing the hand of the State, or of a municipality, by starting some great work which must be completed without his aid. In fairness to the King it should, however, be said that in those matters in which he himself profits most —the beautification of his personal estates is a case in point—the only requisitions that he makes are upon his own fortune. It should be said, also, that in his personal gifts to the nation he displays a generosity fairly astonishing.

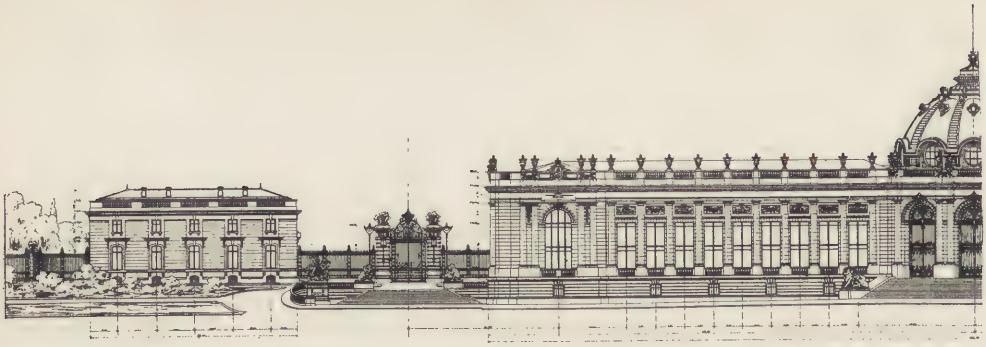
An example of this generosity is the new arch which unites the two wings of the Palais du Cinquantenaire. This arch, very effective and imposing from a distance, but marred on closer view by much incongruity of detail, and by both the number and variety of the bronze figures and groups, which detract from the arch rather than adorn it, was designed and built in the incredibly short period of eighteen months. The project was an old one, and in its original form provided for an arch with a single great portal. It was found, however, that such a structure required foundations which the nature of the ground rendered impossible, and the matter remained in abeyance until 1902. In that year the King consulted Monsieur Charles Girault, the Parisian architect, who has served him so well during the



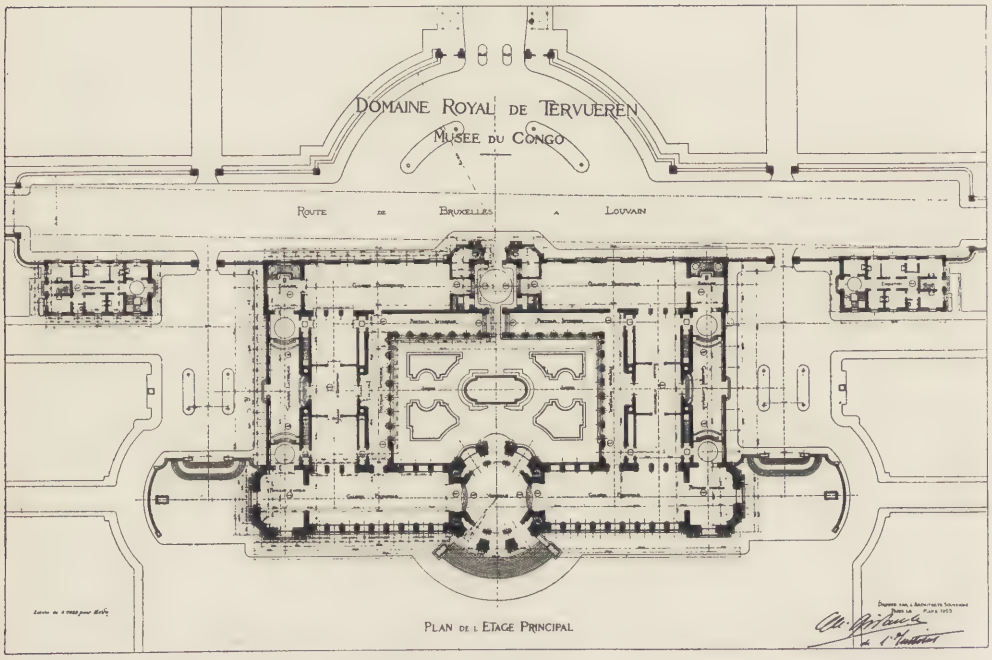
THE NEW ARC DU CINQUANTENAIRE (FROM THE ARCHITECT'S DRAWING).
Brussels, Belgium. Charles Girault, Architect.



Brussels, Belgium. THE NEW ARC DU CINQUANTENAIRE. Charles Girault, Architect.



HALF ELEVATION OF FRONT.



PLAN.



THE COLONIAL MUSEUM AND SCHOOL (CONGO MUSEUM) AT TERVUEREN
Brussels, Belgium. (JUST COMPLETED). Charles Girault, Architect.

last six or eight years, and best known as the creator of the charming Petit Palais in the Champs-Elysées, and secured from him a project for a structure of three portals. No further move was made until the spring of 1904, when the King announced his intention of offering the arch as his gift to the nation on the occasion of the 75th anniversary of its independence.

Monsieur Girault was called upon to execute the work, the King making the single condition—a severe one—that the arch should be finished in time for the celebrations of the following year. By June, 1904, the ground had been cleared and the work upon the foundations begun. This was only completed in December, and yet the finished arch was presented to the nation on September 27, 1905. The rapidity with which the huge work was performed—the facade of the arch measures 180 feet, or 60 feet more than that of the Arc de Triomphe de l'Etoile—was due in great part to the efficiency of two wooden scaffolds, 140 feet in height, of which the contractor, Monsieur Wouters-Dustin, made use. But the large number of men thrown upon the work was another important factor, as was also the perhaps unfortunate speed with which the many Belgian sculptors chiseled the bluish granite into relief or modeled the numerous allegorical groups and figures of bronze.

Beyond the Parc du Cinquantenaire, down the charming avenue that dips gently to the distant wooded hills and there curves onward under Gothic canopies to Tervueren, the King has given an other signal proof of his generosity and creative energy. In pursuit of his earnest desire to bring the two countries over which he presides into ever-closer union, he instructed Monsieur Girault in 1901 to prepare plans for a vast colonial museum and school, to be erected at Tervueren in the interests of the Congo Free State. The buildings were begun in the spring of 1904, and have just been completed.



THE NEW ROYAL PALACE AT BRUSSELS, SHOWING ALSO THE SURROUNDING IMPROVEMENTS.

It would be difficult to imagine a more charming spot wherein to erect a colonial museum and school than Tervueren, and it would be difficult also to conceive of buildings more happily suited to their purpose and surroundings than those of Monsieur Girault. Their height has been perfectly adjusted to that of the stately trees they face. Delicate ornateness coupled with spaciousness and width has given them presence and dignity. And if externally they do not at once proclaim the set purpose they are to serve, their internal arrangements leave it in no doubt.

Almost opposite Tervueren, on the other side of Brussels, lies Laeken, with its royal château, where the King spends most of his time when in Belgium, its beautiful park where so many garden parties of happy memory have been given, its famous greenhouses, and its more famous Japanese pagoda. It is now possible to reach Laeken from Tervueren without crossing the city, and in so doing, to realize also the scope of one the world's longest and perhaps most beautiful Ringstrasse.

The Laeken termination of the Avenue Van Praet is a square, noteworthy quite as much for its fine proportions as for the copy of the Fountain of Neptune at Bologna that the King has placed in it, a unique copy, about the modeling of which there is some mystery. Near this square and just within the royal domain rises the Japanese pagoda. There exists



THE COMPLETED SOUTH WING OF THE NEW SCHOOL OF WAR.
Brussels, Belgium. Henri Maquet, Architect.

of the King's most ambitious projects. Our road no longer lies through the Parc du Cinquantenaire; quitting the Avenue de Tervueren at its intersection with the Boulevard Militaire, we now gain Laeken by way of the Avenue Van Praet.

The Boulevard Militaire and the Avenue Van Praet, wider both of them than the splendid boulevards which already circle the denser portion of Brussels, form about half of what will soon be

no more perfect building of its kind in Japan or out of it. Of all King Léopold's plans for the beautification of his capital or estates, none has been so happily imagined as this, none inspired by motives more purely aesthetic, none more successfully carried to completion. La Tour Japonaise is perhaps, among all the King's constructions, that to which the inhabitant of Brussels points with most pride, that about which he is most curious. Yet the original impulse out of



THE KING'S JAPANESE PAGODA AT LAEKEN.
Brussels, Belgium. Alexandre Marcel, Architect.



THE KING'S JAPANESE PAGODA AT LAEKEN—THE GRAND STAIRCASE.
Alexandre Marcel, Architect.
Brussels, Belgium.

which the tower grew came to the King quite unexpectedly. During a visit to Paris in 1900 he was greatly struck by the reproduction of a small Japanese pagoda at the Exposition. He almost at once bought the carved portal of this pagoda, and shortly afterwards summoning its architect, Monsieur Alexandre Marcel, requested him to consider plans



THE KING'S JAPANESE PAGODA AT LAEKEN—THE ENTRANCE HALL.
Brussels, Belgium. Alexandre Marcel, Architect.

for a similar though far more imposing reproduction for Laeken. Perhaps the King remembered the famous Chinese pagoda built in the 16th Century at Laeken by Archduke Albert of Saxe-Teschen, for the present pagoda stands in its place. Monsieur Marcel accepted the royal commission and work was begun in the following year. All the tower's carvings, whether of wood or stone, all its ornaments of bronze or metal, its doors, ceilings, wainscoting, and nearly every other element of decorated detail, were commanded and completed in Japan. The richness and splendor of the interior is beyond praise, and the first view of the Grand Staircase so striking that on passing the portal—the same that the King bought in Paris—one would hardly care to gain the top of it were its incline less alluring.

This Grand Staircase is contained in the series of little Japanese houses crowded together in a row at the base of the tower, and is lit by splendid stained glass windows, telling the story of old Japan at war. The other story, Japan at peace, unfolds itself along a frieze above these windows, its heroes, as tranquil in their homes, tilling their

fields, or at their games as their warrior brethren are rampant. The tower is a place of contrasts. From out of the haze, now blue, now golden, which floods the Staircase, we enter the Hall, where all is lacquer, carving and enamel. Thence we gain the burnished room of

to enter the tower except upon his express invitation. Recently, however, this restriction has been somewhat relaxed, and a visitor to the royal country seat now enjoys comparative freedom. But even with this freedom he must not reckon without his host, "Le Roi



THE KING'S JAPANESE PAGODA AT LAEKEN—A VIEW ON T HE FIRST STORY.
Brussels, Belgium. Alexandre Marcel, Architect.

the next story, and so on, story after story, each utterly unlike the other. The ceilings of the Hall, and of the first and third stories, are particularly beautiful, the last being of vellum through which shine at night a hundred electric lights.

The King originally permitted no one

Batisseur," as Belgians like to call their King, has not come by his title for nothing, and the park is rarely quite devoid of workmen. Now especially all is activity. The breathing space of the last year or so, when work upon the exterior of the Church of St. Mary, outside

the palace gates, was all-absorbing, has ended. The German gothic ornamentation of this Church, designed by Baron von Schmidt of Munich, has begun to take definite form, and the King's attention has again reverted to work within the park.

This new work consists of additions to the palace and the construction of a short electric railway through the royal enclosure, uniting the palace with the railways of the State. The two splendid wings which Monsieur Girault added to the historic château in 1901 have proved too small for the increasing demands upon the King's hospitality and a story is being added to each and to the original structure as well. To realize the extent of these recent additions it need only be said that those of Monsieur Girault cover 140,000 square feet and that the left wing alone contains a grand staircase, hall of honor, an imposing entrance hall, a court ballroom, a State banquet hall and reception rooms. Whether the new work will leave unmarred that sureness of proportion and symmetry that stamp Monsieur Girault's work at Laeken only time will show. That the King's past projects and transformations have been for the most part happy, must be our best reason for hoping that here at least necessity may be made amenable to law, the proverb notwithstanding.

The space requisition by the King for his electric railway through his Laeken estate has caused no such outcry as that of 1904, when he widened the Place des Palais at the expense of the Park of Brussels. At that time protests were not confined to the deadly serious, though useful English folk who guard the world's traditions from those portals of public opinion, the London papers. Nor could the clamor be stifled in the depths of an American or English leader, even under the weight of such a heading as "Vandalism in Brussels." It spread to Brussels itself, and the wisdom of the royal initiative was seriously doubted. But as the stately new palace rises steadily from its foundations, indifference has succeeded protest; and approval indifference. The true "Bruxellois" has somewhat more time upon his hands than is necessary for the supplying of his daily needs, and he is apt to loiter where building is going on, especially if the builder be King Léopold. Pacing the enlarged Place des Palais has taught him the wisdom of the King's transformation. The Place des Palais of former days, while of sufficient width to permit the gathering of comfortable impressions from pilaster and column, capital and frieze, would hardly have afforded a focus sufficiently long for others of wider angle. And it is just such impressions which enable us to appreciate best how homogenous and imposing is the long facade that Monsieur Maquet, in whose charge the work is, has designed; and how successfully he has proportioned the dependent wings and lodges.

Across the park from the new palace and beyond the Rue de la Loi in the Place Quetelet, it was the King's intention to build a palace for his nephew, the Crown Prince. The designs for this palace, also by Monsieur Maquet, are most attractive, and their realization would have added to Brussels an admirable monument, admirably placed. Unfortunately the years that have elapsed since the designs were made and approved leaves little doubt that the project must be coupled with the very few others that the King has abandoned. Various reasons have been suggested to explain the King's reluctance to build in the Place Quetelet, but it does not seem unlikely that he already contemplates rearing there some splendid foil to the colossal structure to be built at Koekelberg.

No visitor to Brussels, passing into the Place Quetelet from the South, can have failed to be struck by the view disclosed to him. A long, straight boulevard, upon which the eye rides as upon a wire beside a quickly-moving train, hangs in a loop before him. At its western end, dominating Brussels and the surrounding country, is Koekelberg, and here two years ago the King laid the cornerstone of a Cathedral which, when completed, must be compared with the great Cathedrals of the middle ages. Although the analogy goes no further, in

name and position the Cathedral of the Sacred Heart at Koekelberg will recall that of Montmartre. The plans were drawn by Monsieur P. Langerock, of Louvain, and have attracted wide attention. They provide for a monument greater than that of Antwerp, the largest Cathedral of the Netherlands, slightly smaller than the Cathedral of Cologne, and which in style revives splendidly the characteristic Flemish gothic of the 13th Century.

The Cathedral is in the form of a Latin cross, and in its ground plan bears a marked resemblance to the Cathedral of Cologne. It contains a number of unique and highly interesting features. One of these is the unusual development of the crypt. The Cathedral at Koekelberg is destined to become not only a great temple, but the goal of many pilgrimages. The crypt contains most of the chapels which this latter condition implies, and is of such proportions as to constitute a church in itself. The difficulty of lighting it has been perfectly solved by surrounding it on three sides by a moat. A truly admirable arrangement makes it easy of access. The crypt has been brought forward some seventy feet beyond the façade of the superstructure. Above its projecting portion and parallel to the façade runs a broad roadway, rising on the right and left in an easy curve from a point some hundred and fifty yards distant. In the parapet before this roadway and facing a broad square is the entrance to the crypt. Such an arrangement has the very important result of making the two places of worship completely independent of each other, and of permitting two entirely distinct services to be held at the same time. The crypt is dedicated to the Immaculate Conception of Mary and the church above it to the Sacred Heart, two mysteries that most appeal to the Catholics of Belgium.

The sacristies are another especially distinctive feature of the Cathedral. In the great monuments of the past the sacristies, almost never a part of the original design, are only too apt to be both inharmonious and inconvenient. Here, on the contrary, they have been made the subject of long and careful study. They are so placed as to complete the garland of chapels about the apse, and while retaining all their customary isolation, to form an integral part of the general architectural scheme. Far from being merely distressing dependencies, they actually add to the general effect a charm peculiarly their own.

On entering the church, whether from the transepts or the narthex, the eye plunges directly into the interior of the great central lantern. This is provided for by the most ingenious device of splaying the vaulting above the base of the lantern, and it renders the interior very impressive in all its proportions, more than usually striking. Conversely, the device provides a vast amount of light, which is dispersed by eight windows no less than sixty feet in height. The vaulting of the lantern has been brought to a point 250 feet above the pavement. The spire rises to the height of 518 feet, and is consequently to be the loftiest construction in the Netherlands.

The Cathedral at Koekelberg is purely a thing of the King's imagining. Except for his initiative and generosity, neither it nor the other work already described could have been begun. The same is true of nearly every construction of national importance undertaken in recent years, and of many another of more local interest. It may be worth while to mention a few of these latter. They include the new parish church which the King has given to the little village of Heysel, near Laeken, the new School of War, the Avenue de Meysse, 500 feet broad, between Laeken and Meysse; the delightful arcaded promenade at Ostend, the Chinese restaurant at Laeken, designed by the architect of the Japanese pagoda, M. Marcel, and in its way not inferior to it; villas at Wenduyne, a palace on the French Riviera and the new Post Office at Ostend.

About this new Post Office there is a story which, whether fact or fable, describes well the astuteness and directness of the King's judgments. When the plans were brought to him for his approval he pronounced them perfect. Warmly congratulating the architect for

having designed a building in the very purest Flemish style, he declared the appropriateness complete — for Bruges. And the legend runs:

"But do you remember that our Post Office is to be built at Ostend?"

At this the architect seems to have been somewhat cast down.

"Ah, you are really too grave. Take a trip to Paris, it will brighten you. And by the way, the Spanish Palace at the Exposition isn't half bad. Have a look at it. Let me see, haven't I read somewhere that Ostend was once under Spanish rule?"

No doubt the King's other architects —six or eight of the more important represent as many distinct nationalities —could, if they cared, recount stories of similar drift. Certain it is that they each and all unite in praising the decision and resourcefulness of the man for whom they work, his clear-cut understanding of what he is about, his largesse, his ability to "make good."

The King's age does not prevent him from adding continually to the many projects which he cannot hope to live to see realized. A large number of these are embryonic; others, like the proposed Walhalla, or Hall of Fame, the great hospital on the Riviera for invalids returning from the Congo and the projected transformation of the district about the Rue Bréderode, though more definite in form, are still far from realization. It remains, however, to speak only of the most radical and important of all the King's conceptions.

Every visitor to Brussels knows the Montagne de la Cour; the home of English book sellers, of music dealers, of many photographers, of voluble glovers and deprecative vendors of curios. The King has made over the whole of this district to the use of Monsieur Maquet, the architect of the new palace, who is charged to resolve it into what is to be known as the Mont des Arts. This somewhat vague title describes a group of buildings dedicated to the advancement of art and learning with which the King proposes to crown the city in the immediate neighborhood of the Place Royale. Three buildings of the group already exist, the two royal museums and the royal library, and to these there remains to be added a great dominant structure which shall flank the Musée Moderne on three sides and unify the whole. The elaboration of the project makes necessary the levelling of all houses contiguous to the buildings which are to remain; those to the south and west, the latter including the Salle du Grand Harmonie, and to the north the shops mustered in that hallway to royal favor, the Montagne de la Cour, a deferential yet phlegmatic row, with the seal of service "by appointment" on their smooth faces. The suppression of the motley brood of buildings under the southern lee of the Museum of Ancient Art and the Library serves the double purpose of clearing the way for the new colonnaded façades with which these are to be embellished, and of widening to thrice its width the Rue Ruysbroeck. The other buildings disappear to make way for the hugh phalanx-like formation enclosing the Musée Moderne.

With these transformations accomplished the Mont des Arts becomes structurally complete, and, in that it is bounded on all sides by streets, graphically isolated. But this isolation is, after all, more implied than real, and the King, who does nothing by halves, proposes to make it real and completely effective by razing the little island of houses between the Montagne de la Cour and the Rue Coudenberg. This space becomes, under the new order of things, a terraced "glacis," an esplanade of marble and verdure, and a place for sculptural ornamentation.

To live to see the Mont des Arts completed is probably the keenest desire of the King in his character of "Le Roi Batisseur." If the project is not the very first in the long list so wonderfully varied and so largely fortunate, which the King has to his credit, it was the first to give him that prestige he most cherishes, as its realization will doubtless best establish his right to an important niche in the Hall of Fame of his imagining.

Albert H. Michelson.
U. S. Consul, Turin, Italy.



Plymouth Place, Chicago, Ill. CHICAGO AUTOMOBILE CLUB. Marshall & Fox, Architects.

A French Electric Villa

There is nothing that strikes an American citizen so much, after living in France for a few months, as the predominance of the artistic over the practical. Just think how many beautiful apartment houses there are without telephones and elevators, that have neither electric light nor bathrooms, that are unprovided with either heating or fire-alarm apparatus, and that are woefully deficient in the hundred and one little things that make life agreeable. Parisians do not appear to notice their absence, but we who are accustomed to the advantages and luxuries of New York homes miss them terribly.

But, with all the conveniences of our up-to-date interiors, have we really reached the acme of perfection? It appears not. Scientists, sociologists and architects affirm that the science and art of building and furnishing houses is still in its infancy, and that we can easily ameliorate the conditions of life by boldly utilizing modern discoveries, especially electrical ones. The essential object to be aimed at, they tell us, is simplification. "The scheme of lite has become far too complex. We must aim at having within reach of our hand, and at the expense of a minimum amount of effort, everything that is indispensable to our well-being. Space, too, must be economized, for it is not everybody that has at his or her disposal the three hundred rooms of a palace."

The problem has already been seriously studied. Who has not dreamt of the day when it will be possible, if not to do without servants altogether, at least to reduce their number to a minimum? Did not Berthelot's epoch-making discoveries in synthetic chemistry show that sugar and other foods could be artificially produced?—and did not the great chemist himself say that he could foresee the time when, thanks to inexhaustible stores of energy drawn from the bowels of the earth, the food supply of the entire world would be manufactured synthetically, and in so condensed a form that the cook's occupation would well-nigh be gone? Finally, what middle-class householder has not ardently wished for the advent of the day when his incommodious city dwelling would be provided with rooms that, at the touch of a lever or a button, could be instantaneously transformed into chambers serving a number of purposes?

Though fully aware that this is open to the criticism that it is utopian, I am convinced that some such wonders will find a place in the houses of the future. The progress made by electrical science has been so rapid, and its coming victories promise to be so numerous, that the rôle it is eventually to play is now beginning to be clearly defined. As an example of the multitudinous labor and time-saving uses to which it can be put, look at that wonderful house, the "Villa Féria Electra," which has been built by M. Gëorgia Knap at Troyes, an ancient cathedral town some hundred miles from Paris, and which I recently visited on behalf of the "Architectural Record." If not an exact type of what most houses will be like in fifty to a hundred years' time, it at any rate points the way towards progress.

Unable to respond to M. Knap's invitation as promptly as I should have liked, it happened that it was after dark when I arrived at Troyes. Eight o'clock was striking as the lumbering provincial *fiacre* that I had hired at the railway station entered the quiet street where he lives and deposited me at the entrance to the grounds of his house. The darkness was, indeed, so intense, that, doubtful as to whether I had got to the right number, I had to strike a match in order to see what was engraved on the marble name plaque. Finding that I had not made a mistake, I next looked about for a means of passing through the solid

iron gates, which apparently could not be opened from the outside. At last I espied an electric bell-push and rang.

Suddenly, in response to the pressure of my finger on the button, a shaft of light was projected through an opening in the gates full upon my face. Decidedly taken off my guard, I made an involuntary start backwards, and then moved out of its way. But, whether I moved to the right or the left, it continued to follow me. At the same time, the alley where this inquisitive searchlight is placed was lit up, and a clear, sonorous voice issued from behind the stone pillar to my right.

"Ah *mon cher monsieur,* I see you now," it said. "I didn't recognize you at first. *Entrez donc, et soyez le bienvenu!* Everybody has arrived now that you are here, so we can sit down to table as soon as you like. Allow me to open the gates for you."

There was a sound of machinery in motion and one-half of the entrance slowly swung open. Entering the alley, I was about to push the gate to when the same mysterious voice, which I naturally concluded came from some hidden loud-speaking telephone, bade me save myself the trouble.

"No need to bother about the gate,



Troyes, France. VILLA FERIA ELECTRA—ENTRANCE GATES.

thank you. I'll close it. And now come along to the house. Straight down the alley, please, and turn to the right when you get to the bottom. You'll find me waiting for you in the vestibule."

M. Georgia Knap once more gave me welcome, this time with outstretched

"An electric door-mat, set in motion by the simple opening of the door," said my host, by way of explanation, "is an absolute necessity in every well-appointed house. This little invention of mine is a great labor economizer, since it insures the cleanliness of my polished



VILLA FERIA ELECTRA—INSIDE THE ALLEY, SHOWING MECHANISM FOR OPENING AND CLOSING GATES; IN THE UPPERMOST BOX IS THE TELEPHONE BY MEANS OF WHICH THE INVISIBLE HOST GREETS HIS APPROACHING GUEST.

Troyes, France.

hand. Hardly had I stepped inside the house than a fresh surprise awaited me. I felt that something was moving beneath my feet, that the soles of my boots, which, in a moment of forgetfulness, I had omitted to wipe on the outside mat, were being rid of their mud automatically.

floors and staircases. . . . But permit me to show you the way to your room."

After mounting a staircase, M. Knap showed me into the bedroom that had been prepared in view of my visit and left me to make my toilet. When I had finished, he said, I should find him in his

study, where he hastened to rejoin his other guests.

There were about a dozen of us to dinner that evening, and as we sat down no one save our host failed to be astonished at the sight of the table at which we were to eat. For it was evidently no ordinary table. Between its central *épergne* and the guests was a curious elliptical band of metal, in which was a deep groove, like a miniature tramway line. At one end—that opposite which M. Knap was sitting—was a circular disc, likewise traversed by the groove. Opposite each seat was a sort of glass and metal cylinder, the utility of which was to be explained a little later. Finally, at our host's right hand were a number of black and white electric buttons, which, as we soon found, were to play an important part during the whole of that memorable dinner.



M. GEORGIA KNAP'S VILLA FERIA ELECTRA.
Troyes, France.

"Let me explain to you," said M. Knap, "that these little black and white buttons are, in a sense, the servants that are to wait upon us. Neither man nor maid will enter this room, from the first course to the last, so we are dependent

upon electricity for all our communications with the kitchens below. But I think we'll have a little more light on the scene, and a little more warmth, too, for the temperature, unless I'm greatly mistaken, has fallen."

A hidden switch was turned and instantly the table was flooded with multicolored light. The chrysanthemums, roses, and tulips with which the *épergne* was ornamented, the garlands of imitation violets that ran round the table, and the little glass and metal cylinders in front of us suddenly became incandescent. The last-named, we found, were electric radiators, capable of increasing the warmth of the room in a very few minutes.

"If these are not enough, and your feet happen to be cold," we were told, "you will find electric foot-warmers under the table opposite each chair. You can turn the heat on and off by touching a switch with the toe of your boot."

Before we had fully recovered from these fresh surprises, a still more astounding thing occurred. The disc opposite our host opened as though by magic, a steaming tureen of soup appeared through the opening, and, on the sections closing, rapidly and noiselessly travelled to the seat occupied by Madame Knap. The ladle happening to be rather awkwardly placed, she was about to lean forward to reach it, but was saved the trouble by the tureen swinging round and placing the spoon almost in her hand. A touch on one of the buttons under her husband's control had made it perform that little graceful trick.

The lady having taken what soup she wanted, the tureen passed on to the next diner, and so on round the table until



VILLA FERIA ELECTRA—THE ELECTRIC DINING-ROOM TABLE.—UNDER THE CLOTH MAY BE SEEN THE SHAFT THROUGH WHICH THE DISHES PASS BEFORE REACHING THE TABLE.
Troyes, France.

everybody had been served. When all had finished, it made a second circuit, inviting each to partake once more of its delicious julienne; after which it returned to the head of the table and disappeared.

In a few seconds, the soup tureen was succeeded by a special receptacle for holding dirty plates, which it removed from the table in less than half a minute.

"No staff of servants, however well



VILLA FERIA ELECTRA—THE MECHANISM BY WHICH THE DINING SERVICE IS ACCOMPLISHED.
Troyes, France.

trained, could have performed that work so expeditiously," remarked our host. "It is true you were put to the slight trouble of placing your plates in the receptacle. But think of the enormous advantages of this system of table attendance. No danger of having your clothes spotted with grease by clumsy attendants; no clattering of crockery; no hurrying backwards and forwards of servants, and no indiscreet ears to hear what you are saying."

The next things to appear on the electric dinner table were bread and wine, the latter on a special support holding four bottles. Then came the next course, in company with plates warmed by electricity. And so on until the end of the repast.

By the time the coffee and *liqueurs* had arrived, the room—a rather small one for so many people—had become a little over-heated. Somebody remarking that it was getting "too warm to be pleasant," M. Georgia Knap begged us to be patient for a moment or two, as the temperature was nearly at seventy degrees, and on reaching that point the ventilation would be done automatically. It was, indeed, as he had said. A minute later, a gentle breeze came from beneath the table—a breeze scented by its passage over perfumed water.

"This is the method by which I propose to ventilate all the houses that I am called upon to build," said the architect and inventor. "The old plan of ventilation, at any rate in France, is to open doors and windows, with the inevitable result that you catch your death of cold. No such danger with this new system. . . . But, now that I see you have all finished your cigars, let me show you over my house and explain some of the machinery that has caused these so-called wonders."

The first place we visited was the kitchen, which is situated immediately beneath the dining room. Everything being electrical, the best of cooks, accustomed to the old methods of cooking, would feel himself quite at sea amidst the many strange apparatuses to be seen there on all sides.

Fixed to the walls are numerous switch boards with their levers, galvanometers, etc. Cooking utensils are made of aluminum and differ entirely in shape from ordinary ones. But what particularly struck me was the method employed in using them. The succulent fowls that we had had for dinner had been cooked, we were told, in the electric oven to the left of the window: an oven the interior of which consists of a series of reflectors and special incandescent lamps. From twenty to thirty

minutes, according to the size of the bird, was ample time to cook them *à point;* and when they were ready the current was cut off automatically and a bell rang to inform the *chef* that he could take them out and prepare them for the table.

"This little apparatus for timing the cooking of joints and poultry is very convenient," explained our cicerone. "It insures everything being done to a turn. I have applied it even to the making of mayonnaise sauce. The cook sets the needle to three minutes, in this way,"—suiting the action to the words—



VILLA FERIA ELECTRA—TELEPHONE AND PLAQUE COMMUNICATING WITH THE ELECTRIC GATE.
Troyes, France.

puts the electric motor in motion, and then is free to do something else. At the end of the time indicated the motor stops and the bell rings to tell him the work is done. There is nothing so convenient, I can assure you, as an electric *cordon bleu.* It doesn't waste time by gossiping while the milk boils over or the *oeufs à la neige* thicken; it spoils nothing, and as regards cleanliness it is without an equal. Just look at this little table here, and tell me if you do not think it would be a valuable addition to any household."

In a corner of the kitchen, and on a table with a top that can be revolved, were a number of little culinary apparatuses, all worked by electricity. They included a mincing machine, a miniature churn for the production of fresh butter at a moment's notice, a machine for making mayonnaise sauce, another for grinding coffee, and a fifth for polishing knives. Each could be set in motion by means of an adjoining tenth of a horse-power motor, workable at a cost of about a cent an hour.

"As you see, we utilize electricity for nearly everything," said M. Knap. "I have even invented an electric machine for washing dirty plates and dishes. It will hold fifty pieces at once, and wash and dry them in thirty seconds. But that, compared with other inventions which I have to show you, is hardly worthy of your attention; so I would now have you look at the apparatus by means of which our dinner was placed on the electric table."

The speaker pointed to a sort of lift that reached from the floor to the ceiling in the center of the kitchen.

"On receiving a signal from the dining-room that a fresh course is wanted," he continued, "the cook's assistant places it on this tray and pulls down the lever marked 'Montée.' It immediately rises the circular discs on the table above open automatically, it passes through that opening you see in the ceiling, and on reaching the table is retained by the discs closing. In order to remove, say, a joint, he works the lever marked 'Descente,' whereupon the discs open and the dish with its contents descends. The machine is easily worked, and its mechanism is so simple that there is not the slightest danger of its getting out of order."

When he had finished his explanation of this ingenious contrivance, I noticed a marble plaque, to the right of the window, on which were a number of switches, a bell, an iron mask, with wide-open eyes and mouth, and a central pointer capable of being turned either to the right or the left by means of a handle. The juxtaposition of a telephone made me conclude that it was with the aid of these various appliances that M. Knap

controlled the gate at the entrance; and on inquiring I found that I was not mistaken. A visitor's arrival is announced by the bell ringing. The person whose duty it is to attend to callers at once goes to the telephone and asks who is there. The reply can be heard quite distinctly. In fact, the microphone at the gate is so sensitive that people and vehicles passing in the street can be heard almost as plainly as though they were but at a few yards distance, instead of three hundred yards away; while the ticking of a watch, when it is placed quite near the apparatus, sounds like the strokes of a sledge-hammer. Unless the visitor is acquainted with the "Villa Féria Electra," he will probably be too surprised to reply. How then does the janitor know who is there? By a very simple and effective arrangement of mrirors, which M. Knap calls a periscope. On glancing out of the window, after lighting up the avenue and garden with their searchlights if it is night-time, a clear image of the caller can be seen on a large and slightly convex mirror, situated not many yards away. A quarter turn of the pointer to the left sets the machinery in motion for opening the gate; a quarter turn to the right will close it. The iron mask serves the useful purpose of indicating at which of the two entrances to the grounds of the house—front or back—visitors are ringing. If at the former, a white disc appears in the left eye; if at the latter, in the right eye. Moreover, when letters are dropped into the box at the main entrance, a white label, shaped like a tongue, shoots from the mouth.



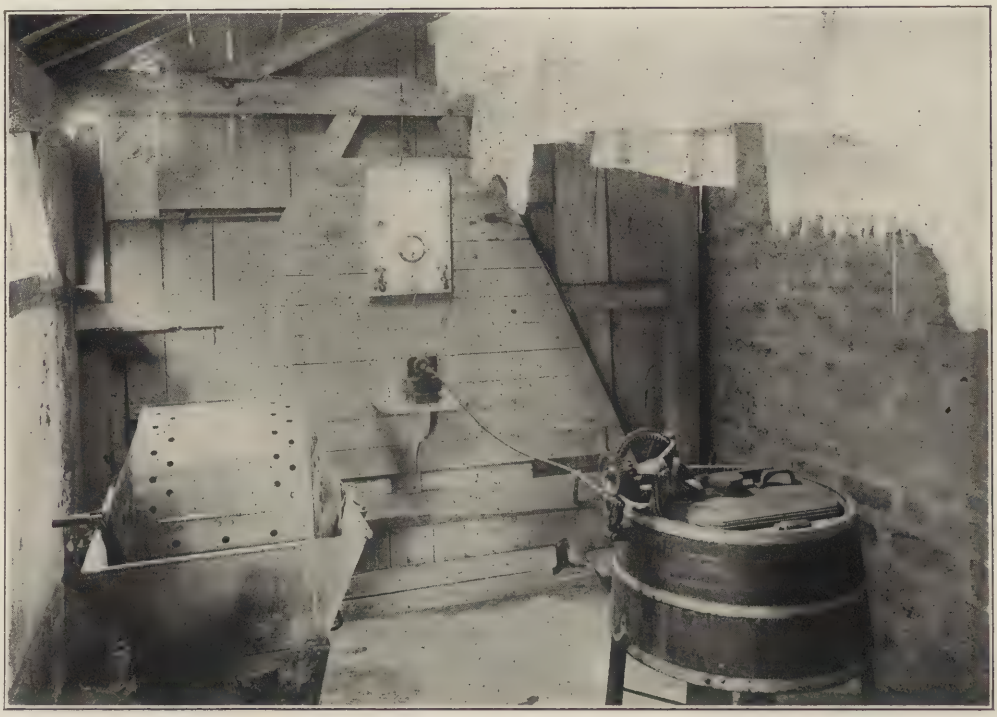
VILLA FERIA ELECTRA—ELECTRIC KITCHEN RANGE.
Troyes, France.

The night being now far advanced, the guests whose homes were in Troyes took their departure, while we who had come from a distance retired to our rooms. Before saying "good night," however, our host took the trouble to explain to us that we need have no fear of fire, that outside each room door there was an electric fire alarm, "another of my little inventions." On the temperature rising

beyond a certain point, all the bells in the house are set ringing.

On the following morning, after an excellent night's rest in the most comfortable of electrically heated bedrooms, M. Knap continued to show us over his house and grounds. We paid a little visit to the laundry to see the washing machines, which are worked by a one-tenth horse-power motor at a trifling cost.

"The clothes are left in the rotary



VILLA FERIA ELECTRA—A CORNER OF THE LAUNDRY, SHOWING ONE OF THE 1-10 HORSE-POWER MOTORS WITH WHICH THE MACHINES ARE WORKED.
Troyes, France.

washer for twenty minutes," explained our guide. "They are then put into the rotary rinser for a like length of time, after which they are ready to be passed through the wringer and hung up to dry. When the family washing for the week is done in less than an hour, washing day is no longer an occasion to be dreaded."

Adjoining the laundry stands a small building containing the accumulators. These produce a continuous current of about twenty-eight volts, a very low voltage indeed, yet quite sufficient for the working of the washing-machines, the electric table and its lift, the electric doors, the small culinary apparatuses in the kitchen, the ventilating and fire-alarm appliances, and other minor contrivances.

On returning to the house and M. Knap's private study, the architect drew my attention to the fact that the villa in which he had installed all these electrical devices was one of quite ordinary construction, and that in one specially built it would be possible to derive still further advantages from electricity. He placed before me a number of water-color drawings and plans, some of which are reproduced in these pages, and, as they embodied his ideas on the subject of the houses of the future, kindly consented to explain them in detail.

"The art of the modern architect and engineer," he said, by way of introduction, "consists in utilizing electricity, compressed air, heat, light, and water in all their applications. He must, there-

fore, build houses on entirely different principles from those now adopted. His houses, in short, must have double walls. How can warmth, produced by low pressure heaters, be efficaciously maintained when the outside air is continually filtering into our rooms? How can we keep our interiors cool in summer when the walls of our houses are being almost baked by a July or August sun? Moreover, this use of double walls is not at all a new idea, since most Russian houses, even old ones, possess them, in order to prevent the cold from penetrating. A current of air, only a few degrees above zero, circulating between the two walls is sufficient to keep the temperature of the rooms unvarying and lasting. In eastern countries houses are also built with double walls, so as to keep out the intense heat. Why don't we do the same, both in the Old and in the New World, where changes in temperature are sometimes very sudden? If the cost of building double walls is greater than that for a single one, the additional expenditure is quickly covered by the economy in fuel. But I have yet to point out another advantage in double walls—the most important one of all. Between them—and I suggest that they should be about two feet apart—I would place all the pipes, conduits, wires, etc., necessary for the proper working of the household. For instance, the water-pipes, which would no longer run the risk of being frozen in winter, would be there; and so also would the rain-water pipes, which,



AN ELECTRIC HOUSE DESIGNED BY M. KNAP. FRONT ELEVATION.

when on the façade of a house, often, to my mind, spoil its appearance. Side by side with the latter I would put the conduits of the low-pressure steam-heaters, thus keeping an even temperature between the walls. Then, apart from conductors of electric force and light, telephone and electric-bell wires, vacuum tubes employed in removing dust from the rooms, etc., etc., I should utilize part of the space for the little tubular elevators that I propose to have working between the kitchens and the bedrooms and for the mechanical sideboard that con-

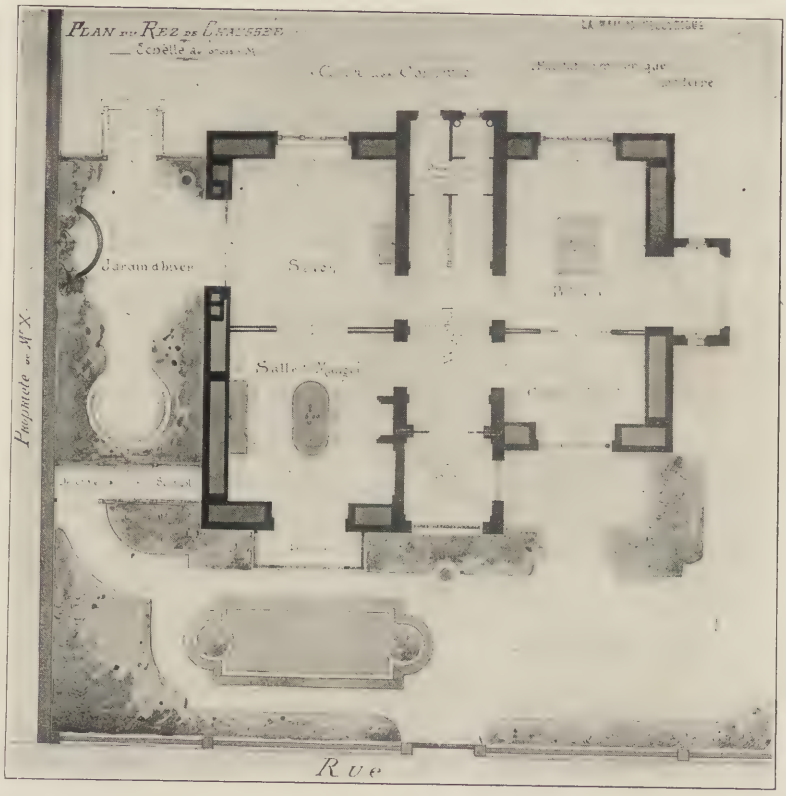
nects the dining-room with the kitchen. These drawings and plans will enable you to form a good idea of the type of electric house I have in view.

"The basement consists of a kitchen and pantry, an electric laundry, cellars, a room for the accumulators, another for the steam-heaters, and the underneath part of the electric door-mat.

"On the ground floor are large and boudoir, and the billiard-room into a library, or an artist's room, in accordance with the needs of the occupants.

"On the first floor there are four bedrooms with tubular elevators and electrically fitted-up dressing rooms, and, in the turret, a bath-room, with instantaneous heating apparatus.

"The second floor consists of two large bedrooms with dressing rooms and elec-



Jardin d'hiver—winter garden.
Aquarium—aquarium.
Soleil électrique—electric "sun."
Descente sous sol—steps into basement.
Salon—drawing room.
Salle à Manger—dining room.
Table électrique—electric table.
Buffet mechanique—mechanical sideboard.
Forte électrique à glissières—electric sliding door.
Billard—billiard table, descending into the floor electrically.
Cabinet de travail—study.
Decrottoir électrique—electric boot-cleaning mat.

AN ELECTRIC HOUSE DESIGNED BY M. KNAP. GROUND FLOOR PLAN.

small vestibules, a study, a dining-room eighteen and a half by twenty-one and a half feet, a drawing-room of the same size, an electrically mechanical billiard-room, a large terrace in front of the study, and an extensive electric winter-garden. The study can be turned into a tric service, and four servants' bedrooms. And now let me say a few words about some of the electrical apparatus which can be applied to a house of this kind. Some of the interior doors must, of course, be sliding ones, capable of being opened by the mere touching of **a**

button. Those that I have invented divide in two, each half sliding noiselessly and rapidly into the wall, and closing automatically. They have a great advantage over ordinary doors, inasmuch as they do not require half the effort to open them, and the space that they economize is considerable.

"The shutters to all the windows on the ground and first floors of the house before you are worked electrically, and are on the same principle as the sliding doors. In the bedrooms, they can be opened or shut at the same time as the curtains, while you are lying in bed. Moreover, all the shutters on these floors can be closed simultaneously from a certain part of the house, a very useful thing to be able to do when the sun is shining full on one side, to the detriment of curtains and carpets, and for one reason or another, you do not wish the servants to enter the rooms.



M. GEORGIA KNAP, INVENTOR AND OWNER OF THE VILLA FERIA ELECTRA.

"In addition to being able to open and close the shutters from your very bed, you are in direct communication with the kitchens by means of the tubular elevator and loud speaking telephone. Thus, your *petit déjeuner,* the mail matter, and the morning newspapers arrive at your bedside without your privacy being disturbed by servants entering the bedroom.

"The mechanical sideboard in the dining-room is worked on the same plan as the electric table, to which it is a necessary adjunct. It will be found exceedingly useful for serving light refreshments and afternoon tea.

"There is now only one more room that I need mention: that marked 'billiard room' on the ground-floor plan. By means of an elevator the billiard table can be let down into the basement. The room can then be used as a *salle de jeux,* or small theatre.

"In outlining for you my ideas on some of the essential features of an up-to-date electric house I have necessarily had to be brief. There are points, I dare say, on which my *confrères* of the New World would have liked me to be more explicit, points that one overlooks in a hasty conversation. If so, let me say that I shall be glad to answer any questions that they may like to ask me through your kind agency."

Before concluding, I must not omit to mention the interesting fact that the many inventions which are in working order in M. Gëorgia Knap's electric villa represent ten years' work, and that prior to devoting his energies to electrical science he was an ordinary mechanical engineer. He began his career at the age of about fifteen, in the locomotive works of the State and Eastern Railway Companies. A few years later, when cycling commenced to become popular, he opened a repairing shop, with the modest capital of twenty dollars; and from that time dates his prosperity. From inventions useful in the manufacture of cycles he passed to those interesting the progress of automobilism, and he is now one of the members of an important company which has built works at Troyes for the production of his motors.

Frederic Lees,

Officer de l'Instruction Publique.

Baron Haussmann and the Topographical Transformation of Paris Under Napoleon III.

II.

The Revolution and Haussmann—The Plan of Verniquet

All the old Paris maps are fascinating, especially those which are drawn *en cavalier;* that is, half map and half panorama, with the view point in the west so that the spectator may look into the façades of the churches. But the finest of all is the great map of Verniquet, which is not *"en cavalier"* but simply geometrical. We reproduce this map in nine sections.

Verniquet was a Burgundian architect who held the office of *Commissaire-Général-Voyer* in the bureau of Finance. Finding the older maps imperfect he began a new triangulation, at first privately, but after 1783 with the encouragement of Louis XVI (King 1774-1793). With the sixty engineers whom he employed he was obliged to measure the dark, narrow and crooked, but busy streets of old Paris in the night by torchlight. He finished his work in 1791.



FIG. 1.—THE PLAN OF VERNIQUET (1791), SECTION 1.

In looking over the map of Verniquet we are surprised to see how like Paris it

is. We are accustomed to consider the city as largely a creation of the nineteenth century; but here is a plan, finished at the breaking out of the Revolution in which the dominant lines are firmly laid down, quite as we see them today. The great city builders of the seventeenth and eighteenth centuries, Louis XIV, Colbert, Le Nôtre, Blondel and the Académie de l'Architecture have left their not uncertain mark in vast reaches

old plan of the Madeleine is shown, in which it was conceived as a domical building, presenting a much finer appearance in the vista of the Rue Royale than the present rectangular structure. The place Louis XV, now De la Concorde, shows the delicate design of Gabriel with the sunken parterres and the equestrian statue of Louis XV.

Of the inner line of boulevards on the southern side—Rive Gauche—Verniquet

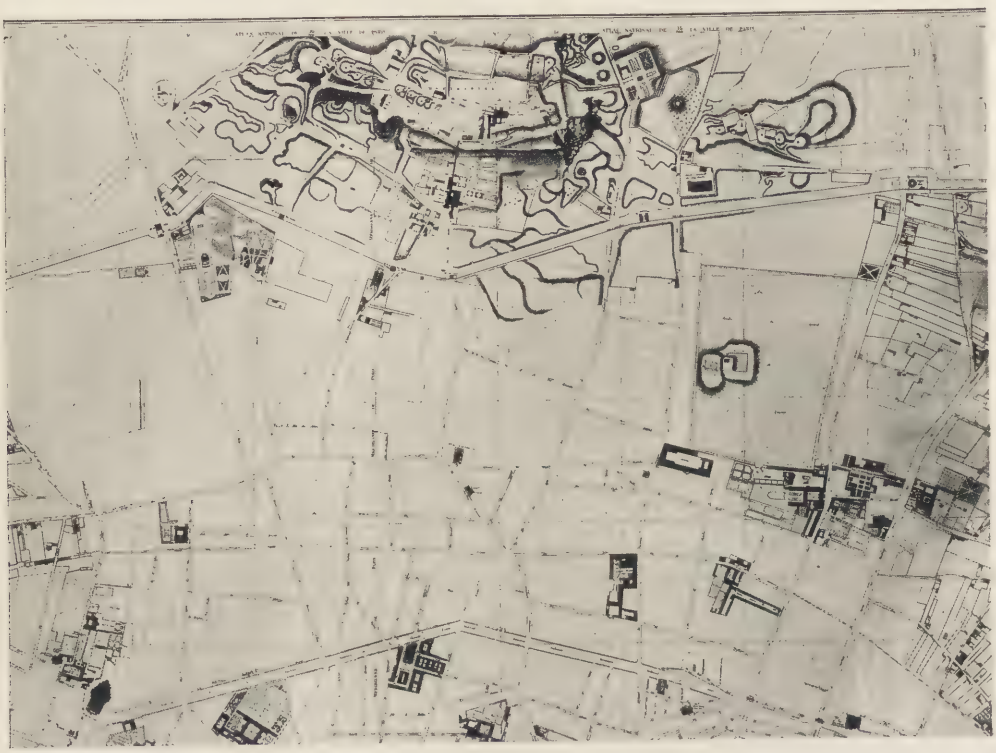


FIG. 2.—THE PLAN OF VERNIQUET (1791), SECTION 2.

of avenue and boulevard which did, at the beginning of the Revolution, and do now control the map of the city.

The Grand Boulevard is clearly defined in the plan of Verniquet from the Bastille, which is still shown, although destroyed in 1789, to the Place de la Madeleine. The names of the various parts differ a little. The arches of the Porte Saint-Denis and Porte Saint-Martin are, of course, in place, but the light wall of Louis XIV is not continuous. It was, probably, never completed. The

shows the Boulevard du Montparnasse built according to the plan of Bullet and Blondel (1676), and as it is today. The Boulevard des Invalides appears as it is today, but not as was intended by Bullet and Blondel. The eastern portion, beyond the present Carrefour de l'Observatoire, was loosely sketched by Bullet and Blondel, and is not shown at all in Verniquet.

It is interesting to find in this map the outer line of boulevards on the northern side—Rive Droite—developed precisely

as it appears today, except beyond the Place de l'Etoile, where the large operations of Haussmann have interfered greatly. These streets were built just outside the Mur d'Octroi, or tariff wall, contrived after 1784 for the benefit of the farmers of taxes in the reign of Louis XVI. To this *barriére* the architect Ledoux added an interesting series of edicules to be used as offices by the tax-gatherers.

du Faubourg Saint-Honoré, the Avenue des Ternes, the Avenue du Roule and Rue du Pont, to the old Pont de Neuilly, a little farther down the Seine than the present monumental bridge. This old road was a good street, similar in character to our Broadway, or Oxford Street in London. In any other town than Paris it would have answered well enough. But for the royal entrance to the home of French magnificence it was



FIG. 3.—THE PLAN OF VERNIQUET (1791), SECTION 3.

The plan of Verniquet shows the great axial avenue from the Tuileries to Neuilly and Courbevoie as far as its limits permit. The entire length of the street is given in a beautiful map published by Perronet in his "Description des Projets et de la construction des Ponts" (1782), which we publish in the illustrations. (Figs. 11, 12.)

We must bear in mind in our study of this street that the old route to Saint-Germain lies only a short distance to the north in the line of the present Rue

not sufficient. The architects of Louis XIV. drew their *Via Triumphalis* in the axis of the city; straight, vast in width, and interminable in length.

Perronet shows the great avenue passing entirely through open country. Hardly a dozen buildings appear in its entire course.

The Plan of Verniquet shows the Place du Trône developed, and the Avenue de Vincennes corresponding in a monumental way to the Avenue de Neuilly. It is difficult to reject the con-

viction that an intention existed to carry the eastern avenue to the Louvre in an approach similar to that of the western avenue to the Tuileries.

All the region about the Invalides and the Ecole Militaire appears in Verniquet in its present condition.

We have devoted much attention to the plan of Verniquet, simply to show



FIG. 4.—THE PLAN OF VERNIQUET (1791), SECTION 4.

upon what sort of foundation Haussmann built. In this beautiful map the prophecy of Paris is perfect. The monumental lines are drawn. But that is all. They are drawn, but not constructed. Even at the moment of the installation of the Second Empire in 1852, the great avenues were little better than waste land. The space between them varied from open country in the outer regions to a dense mediæval condition near the center.

The Revolution.

The rottenness of old Paris is a picturesque subject. The Romantic school of writers, Victor Hugo, Balzac and others have reveled in it. All European cities were in the same condition. London tidied herself up a bit in the early nineteenth century; Paris tried to do so, but did not succeed so well. Haussmann found the old city not much less rotten than she was when clever old Voltaire wrote "Des Embellissements de Paris" (1749). Voltaire foresaw Haussmann as clearly as did Colbert.

He says: "Nous possédons dans Paris de quoi achêter des royaumes; nous voyons tous les jours ce que manque à nôtre ville, et nous nous contentons de murmurer. On passe devant le Louvre, et on gémit de voir cette façade, monument de la grandeur de Louis XIV, du zèle de Colbert, et du génie de Perrault, cachée par des bâtiments de Goths et de Vandales. Nous courons aux spectacles, équestre de Henri-le-Grand, ces deux ponts, ces deux quais superbes, ce Louvre, ces Tuileries, ces Champs-Elysées, égalent ou surpassent les beautées de l'ancienne Rome, le centre de la ville, obscur, resserré, hideux, représente le temps de la plus honteuse barbarie, Nous le disons sans cesse; Mais jusqu'a quand le dirons-nous sans y remedier * * * * il faut des marchés publics,



FIG. 5.—THE PLAN OF VERNIQUET (1791), SECTION 5.

et nous sommes indignés d'y entrer d'une manière si incommode et si dégoûtante, * * * et d'en sortir avec plus d'embarras et de peine qu'on n'y est entré. Nous rougissons, avec raison de voir les marchés publics établis dans les rues étroites, étaler la malpropreté, répandre l'infection, et causer des désordres continuels. * * * Des quartiers immenses demandent des places publiques; et tandis que l'arc de triomphe de la Porte Saint-Denis, et la statue des fontaines qui donnent en effet de l'eau, des carrefours réguliers, des salles de spectacle; il faut élargir les rues étroites et infectes, découvrir les monuments qu'on ne voit point, et en élever qu'on puisse voir.

La bassesse des idées, la crainte encore plus basse d'une dépense nécessaire viennent combattre ces projets de grandeur que chaque bon citoyen a fait cent fois en lui-même."

Voltaire was the chief initiator of the

French Revolution. In the passages quoted above he reveals the attitude of the Revolution toward Paris. Our minds are so fixed upon a few years of anarchy in France at the end of the eighteenth century, that it is difficult to prevent the application of the word revolution exclusively to this period. The Revolution is the large general European movement toward the emancipation of human reason; which, except in France, is not yet complete, and in France was only recently completed. In England the Revolution has worked itself out gradually. For the most part changes have been made when they were required. The conservative French people, on the other hand, allowed pressure to accumulate until explosion became inevitable. But the anarchy of a few years was not the great French Revolution which has done its work so completely in the comparatively brief period of a century.



FIG. 6.—THE PLAN OF VERNIQUET (1791), SECTION 6.

In the matter of civic construction the new movement did not call for splendor and monumental arrangement as the Bourbon monarchy had done. It cried out for comfort and convenience; straighter streets, broader streets, cleaner streets, more light, more air, good water, all those things which come to us today as matters of course.

In Paris it was also neecssary to consider military convenience. The city was bound to be more or less turbulent until the century of readjustment should complete itself.

The modern science of civic construction was not understood until the middle of the nineteenth century. It appears to have developed chiefly in England. The Englishman is more or less

blind to the claims of beauty and monumental splendor; but he appreciates fully the importance of health, comfort and convenience, and will do much to secure them.

During his long exile Louis Napoléon had been often in England, had come in contact with the advanced thought of London, and watched with great interest the hygienic and structural experiments made there. Probably the most impressive feature of the great "Transformation" was the perfect certainty and large comprehension of this man's knowledge of the science and art of City Building. Haussmann equalled him certainly. But it was Haussmann's *metier,* his exclusive occupation. He was not Emperor. He was not trying to ride a brilliant and powerful nation which had been caught and bridled out of hand.

But before we take up seriously the study of these two personalities we should see how much was actually accomplished towards the rectification of Paris in the nineteenth century before Haussmann received his appointment as Préfet de la Seine.

The stormy period of the Revolution did not accomplish much toward the improvement of Paris. Certain nuisances were removed, like the old Cimetière des Innocents (1787). The Bastille was destroyed with tremendous éclat (1789); but the Bastille lay in the way of the boulevard improvement, and would probably have disappeared quietly in a few years. The most important achievement of the period was the drafting of the so-called Plan des Artistes which was ordered by the Convention. It was based on the plan of Verniquet and suggested many improvements which were afterwards executed.

By abolishing the religious establishments the early Revolution threw open for improvement large areas of which subsequent development took advantage.



FIG. 8.—THE PLAN OF VERNIQUET (1791), SECTION 8.

The Empire.

Napoléon Bonaparte (Emperor 1804-1814) was deeply interested in Paris, and much disturbed because his capital presented such a shabby appearance. Bourienne declares that after success in war the embellishment of Paris lay next to his heart, "Je voulais" he declared (Mémorial) "que Paris divint une ville de deux, trois, quatre millions d'habitants, quelque chose de fabuleux, de colossal, d'inconnu jusqu á nos jours."

this a serious objection to the law, always himself preferring to cut through the blocks. Napoléon added sixty new streets, but the only one of first rate importance was the Rue de Rivoli. The history of this street will appear in connection with the discussion of Haussmann's Premier Réseau. It is sufficient to say here that the portion executed by Napoléon Bonaparte was simply that lying north of the Tuileries garden from the Place de la Concorde to the Rue des



FIG. 9.—THE PLAN OF VERNIQUET (1791), SECTION 9.

As affecting the topography of Paris perhaps the most important act of Napoléon was the passage in 1807 of the first Loi d'Alignement, which gave to each street of the city a stated width to which it was necessary that future construction should conform. The action of this law has worked great benefit to Paris, but it has had the disagreeable effect of gradually effacing the old façades of the streets. Paris has lost many fine monuments in this way. Haussmann, it must however be admitted, considered

Pyramides. The long and narrow Manége du Roi, or riding school connected with the royal stables, seems to have determined its width and location. In establishing a definite convention for the design of the buildings with the arcade below, Percier and Fontaine, the architects of the Emperor, followed the precedent established by Du Cerceau in the Place Royale. It is possible that nothing more was intended than to improve the region north of the garden and palaces for residence.

Next in importance to the Rue de Rivoli was the Rue Napoléon, called since 1814 Rue de la Paix, in the axis of the Place Vendôme. The intersection of this street with the Grand Boulevard gave Haussmann a strategic point for the location of the Opéra with its two other approaches, the Avenue de l'Opéra and the Rue du Quatre Septembre.

In 1813 Napoléon took up the axial scheme of the École Militaire and Champ de Mars, and on the hill opposite, across the river, then occupied by the extensive enclosure of the Visitation de Sainte-Marie, began a sort of fortress palace

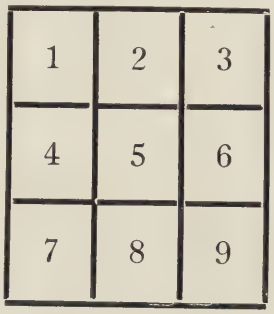


Fig. 10.—Key to arrangement of Plan of Verniquet. Section 7 gives the index and has been omitted on account of illegibility when reduced.—Editor.

which was to bear the title of the little Roi de Rome. The abandoned location of the Palais du Roi de Rome has been well occupied by the Trocadéro ensemble.

The scheme of the Place de la Concorde was completed by the Commencement in 1804 of the façade of the Palais du Corps Legislatif. The Place de la Bourse was begun in 1808.

Napoléon Bonaparte gave to Paris her finest commemorative monuments, all superbly adapted to the advanced axial scheme of the Bourbon designers. The Arc de Triomphe de l'Etoile begun in 1806 and finished by Louis Philippe in 1836, the Arc du Carrousel, begun in 1806 and finished in 1810, and the Colonne Vendôme, begun in 1807, would have been cordially approved by Louis XIV and his coterie of architects.

In a utilitarian way, and in line with the agitation of the Revolution, Napoléon's attitude toward Paris was most intelligent, and his accomplishment considerable. He built three thousand metres of new quais, cleared the superstructures from the mediaeval bridges and built the Pont des Arts (1802), Pont d'Austerlitz (1802) and Pont d'Jena (1809). He constructed sidewalks in some of the leading streets, the first sidewalks in Paris, and added ten thousand *becs de lumière* to their meager illumination. He established the four cemeteries of Montmartre, Pére Lachaise, Montparnasse and Vaugirard.

Napoléon's chief lieutenant was the Comte de Frochot, Préfet de la Seine from 1800 to 1812. He was succeeded by the Comte de Chabrol de Volvic, who retained his office under the Restauration.

The Restauration.

The period of the Restauration as the reigns of Louis XVIII (King 1814-1824) and Charles X (King 1824-1830) are called, was a dull time for the great city of Paris. In his Nôtre Dame de Paris, published in 1831, Victor Hugo gives an excellent description of the city in that day. "Le Paris actuel n'a donc aucune physionomie générale. Cest une collection d'échantillons de plusieurs siècles, et les plus beaux ont disparu. La capitale ne s'accroit qu'en maisons, et quelles maisons! Du train dont va Paris, il le renouvellera tous les cinquante ans. Aussi la signification historique de l'architecture s'éffface-t-elle tous les jours. Les monuments y deviennent de plus en plus rares, et il semble qu'on les voie l'engloutir peu a peu, noyés dans les maisons. Nos pères avaient un Paris de pierre; nos fils auront un Paris de plâtre."

The Rue de Lafayette, originally called Rue de Charles X, is the most important street added by the Restauration.

The July Monarchy.

The reign of Louis Philippe (King 1830-1848) is much more interesting. In his management of Paris the Orleanist King was broad-minded enough to appreciate the splendid intentions of Napoléon, and intelligent enough to understand the utilitarianism of the Revolution. In his creditable accomplishment

he was assisted by the Comte de Rambuteau, whom he made Préfet de la Seine in 1833. He held that office until 1848. Rambuteau had many of Haussmann's good qualities but lacked the brilliancy, and epic reach of imagination, which characterized the "Grand Préfet." Rambuteau was honest and thorough. He comprehended civic construction, as the science stood in the middle of the nineteenth century; but there was a lack of breadth in his attitude. He especially the Arc de Triomphe d l'Etoile and the Madeleine. The improvement of the Place de la Bastille was begun under Napoléon, although the Colonne de Juillet itself belongs to the reign of Louis-Philippe.

The outer line of fortifications was begun early in the reign and finished in 1841.

Louis Napoléon and Haussmann.

Our purpose is chiefly topographical. We are concerned with the plan of



FIG. 11. THE TUILERIES-NEUILLY AXIS; PLAN OF PERRONET (1782).

did not realize how large a problem confronted him. The most important and characteristic addition of Rambuteau to the topography of Paris is the Rue de Rambuteau, an extremely useful street, but drawn without the slightest regard for the large ensemble of the city plan. On the utilitarian and hygienic side Rambuteau did much to improve the condition of the citizens of Paris. The July monarchy deserves especial credit for the generous way in which it took up and completed the Napoléonic monuments, Paris. But the plan of a great city is not drawn offhand. It is the graphic resultant of many forces. In Paris especially we have a vast ensemble rushing impetuously into its future. When Napoléon said that he wished to make Paris "la ville unique du Monde" he simply expressed what was in every Frenchman's heart and what was logically the future of the city.

The growth of the population of Paris in the first half of the nineteenth century was prodigious. The figures are

approximately, 600,000 in 1804, 715,000 in 1817, 785,862 in 1831, 935,201 in 1841 and 1,053,897 in 1846; without counting the large population living between the Mur d'Octroi and the fortifications. Quite as rapid as the increase in population was the general scientific progress of the world in which Paris played a leading rôle. The forces of nature were coming under control, adding to the power of man and ministering to his comfort. The necessities of life were greater, and the means of supplying them correspondingly large. The most important of the new forces affecting the topography of cities was the newly discovered steam railway. This added to the permanent population of Paris a transient population of immense size, and produced extreme congestion about the circle of centers occupied by the new stations.

At the moment of the Revolution of 1848, and the declaration of the Second Empire (Dec. 2, 1852) all these forces were on the increase. The actual present was large but the immediately inevitable future, to those who could see then, and as we know today, was immensely larger.

Louis Napoléon has been branded as a charlatan. As Emperor, as heir to the great Napoléon, as a world figure, he certainly did not fill well the extraordinarily difficult rôle into which he had forced himself. But with the brutality of his début, with the vacillation and chicanery which placed him at the mercy of really strong men like Cavour and Bismarck, we have nothing to do. We are concerned with him simply as a Parisian, as the master of Paris. He understood perfectly the potentialities of Paris. He knew well that the mediaeval conditions still prevalent would not allow proper development to the tremendous forces then appearing in their lusty youth. He knew also that the French people appreciated the situation perfectly and would be satisfied only with a



FIG. 12. THE TUILERIES-NEUILLY AXIS; PLAN OF PERRONET (1782).

large and generous management of impending problems. But Napoléon III. was utilitarian. His attention was held by physical, hygienic and social conditions. He did not despise artistic considerations, but was unsympathetic towards them. Left to himself he would have made Paris, as Rambuteau tried to do, very like London, or worse, like New York or Chicago. But to the everlasting advantage of all who love beautiful cities there was placed in his path precisely the man best qualified to supplement his own good qualities.

Georges-Eugène Haussmann (1809-1891) was not an architect; he was not even an engineer; he was a lawyer born and bred in Paris of a Protestant Alsatian family, well known in Parisian history. From the Ecole de Droit he passed at once into the public service (1830). His first appointment of importance was to the sous-préfecture of Yssingeaux in 1832. He passed from one sous-préfecture to another, until January 24, 1849, he was appointed to the préfecture of the Var by Louis Napoléon, then President of the Republic. On May 11, 1850, he was transferred to the préfecture of the Yonne. Haussmann's appointment to the préfecture of the Gironde, with headquarters at Bordeaux, which took effect Dec. 2, 1852, was part of the general scheme of the Coup d'Etat of the same date. He reached the culmination of his career with his appointment to the préfecture of the Seine, June 22, 1853.

Haussmann was an imperialist by conviction, and at the same time was moved by the warmest personal attachment for the man whose fortunes he followed. In all their vast undertakings the two men worked as one.

The great merit of Haussmann lies in the fact that he was able and willing to grasp the entire problem which confronted him. There was never any question of expedient, of doing an imperfect task to tide over an emergency. The proper and perfect solution of a difficulty was sought and executed.

In our topographical study we will be interested to see how perfectly he understood the plan of Paris, as an organized unity, the result of many centuries of growth. He accepted gratefully what his predecessors left him and all his effort was really only the completion of their work. It is easy to see at this moment that nothing less than that which he undertook and accomplished would bear the pressure which is brought to bear upon the plan of Paris at this moment.

Edward R. Smith,
Reference Librarian, Avery Architectural Library, Columbia University.

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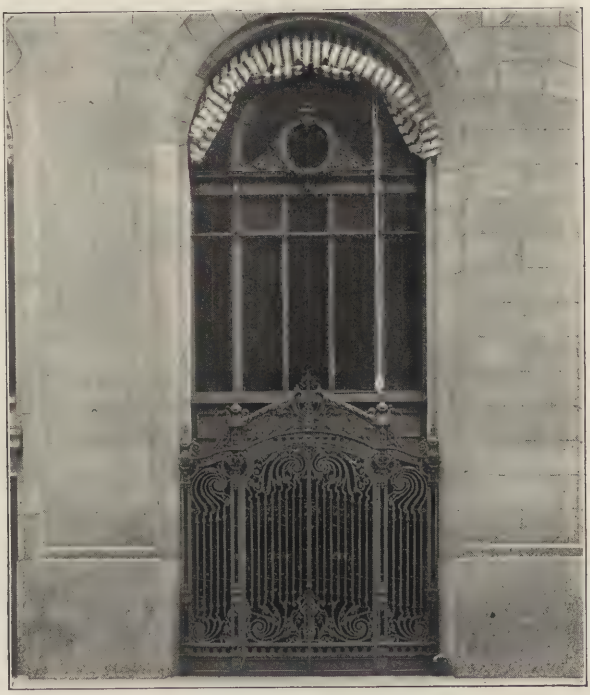
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AMERICAN TRUST & SAVINGS BANK

CHICAGO



JARVIS HUNT, Architect



FIG. 1. BANKING ROOM, ON GROUND FLOOR.



FIG. 2.—SAVINGS DEPARTMENT IN THE BASEMENT.
AMERICAN TRUST AND SAVINGS BANK.
Monroe and Clark Sts., Chicago. Jarvis Hunt, Architect.



FIG. 3.—ANOTHER VIEW OF THE BANKING ROOM ON THE GROUND FLOOR.
AMERICAN TRUST AND SAVINGS BANK.
Monroe and Clark Sts., Chicago. Jarvis Hunt, Architect.



FIG. 4.—AMERICAN TRUST AND SAVINGS BANK.
Monroe and Clark Sts., Chicago. Jarvis Hunt, Architect.

NOTES & COMMENTS

ARCHITECTS AND CIVIC IMPROVEMENT

It is noteworthy, as showing the growing appreciation by architects of their special interest in the matter, that at the May exhibition of the Baltimore Architectural Club emphasis was put on the movement for the general beautifying of cities. The plans for the development of Washington, the ideal scheme that was outlined for San Francisco, the big Philadelphia improvements—the Schuylkill River front and the parkway from the city hall; the plans for the Williamsburgh bridge approach, New York; for the civic court in St. Louis, and many other schemes that are less well known were exhibited. This was perhaps the more significant because Baltimore has not been included in the movement. The elaborate report obtained there from the Olmsteds dealt with park problems only, and the chance that was offered by the great fire was allowed to pass with a widening of streets. But almost everywhere a longer view is taken now, and the architects—being especially fitted therefor by their training—are properly taking the lead in directing attention to the civic possibilities of our cities.

SOME PROMISING LEGISLATION

"It never rains but it pours." The long neglected cause of municipal aesthetics in Philadelphia—which has lately become triumphant with a mayor elected on a "City Beautiful" platform and faithful to his pledges—is so fortunate as to have one of its leaders, Andrew Wright Crawford, an assistant city solicitor. There was an account here a couple of months ago of a bill which he had drawn up, to enable cities of Pennsylvania to condemn land within two hundred feet of a park, parkway or playground in order to resell the same with restrictions. This bill, the most comprehensive and the first really general act on this subject in the United States, is now a law. For three other newly enacted laws that are exceedingly important to the cause of city beauty this valuable assistant city solicitor is also mainly or largely responsible. One is the Art Jury law, giving to Philadelphia a municipal art commission; one is a bill providing for shade tree commissions for the towns, cities and boroughs of the State; and a fourth makes possible the beginning of a suburban park system for Philadelphia. One feature of the Art Jury law, which seems to have escaped popular notice, marks a decided step in advance. It directs the commission, or "Jury," to make from time to time such recommendations for improvements to the city as it may deem advisable. There are great possibilities in this.

ARTISTIC UTILITIES

It is interesting to learn that a firm in a little town of Massachusetts has thought it worth while to specialize on the construction of artistic signboards, for street names, country road crossings, and so on. They are designed, states the advertising circular, by Henry Turner Bailey, of Boston; and the enterprising firm, whose name it is some temptation to give, announces its delight in making each sign a different problem, to be fitted to its particular place and need, and to have its own price attached to it. The illustrations show road signs and "cars stop here" signs; and the circular says that church signs are made and "business signs adapted to the building upon which they are to appear—signs which do not disfigure the work of the architect, but rather add to its effectiveness." Mention has previously been made here of another New England firm that has put an artistic trolley pole in the market. Such practical work as this has a twofold significance. If it does not definitely show that there actually is a demand for well-designed utilities, it at least shows a faith in the immediate rise of such a demand; and it will do more than can a whole fusillade of merely destructive criticisms aimed at aggressive billboards and dilapidated signposts. To offer a good thing instead of a poor thing comes pretty close to winning the fight against the poor one. Civic art in towns has much to hope from such experiments.

COMMISSION ON CHURCH ARCHITECTURE

The canon providing for a commission on Church Architecture, for the Episcopal diocese of Newark, N. J., which was described here in May and was said to be likely of adoption, has been in fact adopted. The committee to whom it was referred reported unanimously in its favor, stating their belief that it "would do much to elevate the character of our church buildings, as well as guard against serious errors of judgment and defects of taste." "We are all agreed," continues the memorial, "that the church building should attract and not repel. It should be an inspirer of reverence and devotion. In many ways it should be a teacher of truth. Moreover, for these purposes its power is not dependent on its costliness or its elaborate ornament." Finally the committee expressed itself as "of the opinion that no such provision as this canon contemplates has yet been made in any diocese of the American Church. They believe, moreover, that, in view of the practical importance of the matter in secular as well as ecclesiastical affairs, as witnessed by the formation all over the land of municipal art commissions, the Church should lose no time in taking some definite action such as that proposed." This is the real significance of the movement. The commission is composed of the Bishop, and of two clergymen and two laymen appointed by the Bishop. Its approval of plans is made mandatory upon missions; but only advisory upon parishes, which, however, are required to obtain the advice. Properly constituted, the commission is likely to prove a helpful ally to conscientious architects.

TRAINING OF ARCHITECTS

Through the enterprise of The Chautauquan, a paper on "Architecture and Civic Progress," that was prepared for last year's convention of the American Civic Association by Professor Frederick M. Mann, of Washington University, St. Louis, has been printed. It includes in its discussion an interesting study of statistics relating to the training of American architects. Putting the blame for urban "architectural monstrosities" on the shoulders of inadequately educated architects—where certainly a good deal of it belongs—the essayist finds, by investigating a business directory, that there are in the United States "about five thousand practitioners calling themselves architects." He thinks that "perhaps three thousand of these have begun practice within the last decade." Now, the American schools of architecture are graduating at this time "about one hundred men each year," says Professor Mann. He adds: "Since the number has been so large only during the past three or four years, it would be a safe assumption, I think, to say that the total number of graduates in the whole decade has not exceeded seven hundred and fifty. While many of these eventually found their way into other callings, the total number has probably been maintained by the incoming of foreign trained men. Among the architects who began practice more than ten years ago the proportion of schooled men is yet smaller. It will, therefore, be a conservative statement to say that of all the architects of the country at most only seven hundred and fifty in three thousand, or one in four, have had a systematic training for the profession they are practicing." At this point there is likely to be, at least from the older men, a protesting question as to wheher any "schooling" is better than the experience to be gained in a good office. But Professor Mann says: "While no one would contend that all the schooled men do good work, nor that all unschooled men do uniformly poor work, it is clear that too large a proportion of the men who design the buildings to beautify or to mar our cities are men who have had little or no opportunity to gain a liberal education, to learn the theory of architecture, or to train systematically the artistic gifts with which nature endowed them." Professor Mann notes an improving tendency, which, he remarks, the public can vastly accelerate by a demand for a higher level of work.

HONOLULU POST OFFICE SITE

The final decision regarding the site for the new post office building in Honolulu was a victory for municipal aesthetics. It followed a fight that was none the less hard because it was fought by wire and letter and word of mouth instead of through the newspapers. This is the story: In 1906 Mr. Robinson made a report on the improvement of Honolulu. He perceived that a new post office was soon to be a live question, and in planning a civic center for the town he pointed out where the structure ought to go. A year passed. Congress made the expected appropriation, various sites were tendered, including the Palace Square location which Mr. Robinson had urged, and the government sent an

agent to Honolulu to investigate and report. Some of the other sites were owned by influential citizens, and the treasury representative, selecting one of these located some two blocks from the Palace Square, sailed away. His decision was not announced at the time, and had to be learned after he reached land. Word was immediately hurried to Mr. Robinson. His civic center scheme was imperiled as far as immediate success was concerned. Could he save it? The matter was carried at once to Secretary Cortelyou, he was given the maps and shown the plan, appeal was made that he take a larger view than the treasury's agent had taken. The answer was prompt and discouraging. Immediately on receipt of the agent's report, the government had cabled its acceptance of the other site. The argument had come too late. The government could not retract if the owners of the selected property met the conditions imposed, which included the opening of a new street. Meanwhile matters had been stirring in Honolulu. A petition had been prepared, begging for the Palace Square location, and it had been signed by nearly all the leading citizens—by Sanford B. Dole, for instance, first president and governor; by Henry E. Cooper, former secretary of state and pretty much everything else, by President Griffiths, of the College, by Chief Justice Frear, by the government's forester, and very many others. But the petition was later than the argument. Still, the owners of the selected site, with the best public opinion unfavorably disposed, found it less easy than expected to get the street opened. Appeal was made to the governor, but he also was affected by the More Beautiful Honolulu bacillus and favored the Palace Square. The best he could do was to refer the street question to a committee of citizens. The congressional delegation visited the island, and appeal was made to have the site settled before the congressmen left. But leading members of the party, who happened also to be members of the public buildings committee, announced themselves as favoring the site that would make possible the beautiful civic center that had been planned. Then Governor Carter came to the United States, and paid a visit to Washington—as was proper; and while he was there the former decision was reversed, and the government selected the site in Palace Square. There will now be grouped around this historic space the executive offices, the courts, the territorial survey office, the old native church with its royal tombs, and the new federal building.

BOSTON CATHEDRAL PROJECT

William Howe Downes recently contributed to the Boston "Transcript" a long discussion of the project for establishing the proposed Protestant Episcopal cathedral of Boston on an island to be constructed in the Charles River. It will be remembered that some years ago a woman made a bequest of a million dollars to the cathedral fund. This is a pretty satisfactory nucleus, and action taken at the diocesan convention in the spring seemed to commit the church definitely to construction. Further, several of the plans brought forward last winter, by the Boston Society of Architects, for the development of the Charles River basin included schemes for putting an island in the river. In the plans of both A. A. Shurtleff and R. A. Cram it was proposed that the cathedral stand at the west end of the island. Thus the pertinence of Mr. Downes's discussion. The site—for which the location of Notre Dame De Paris provides a convenient precedent—offers the advantages of isolation, of conspicuousness where no buildings would ever hide it, and yet a location as central perhaps as any to the metropolitan population. "If, as I hope, the cathedral is to be a Gothic building," says Mr. Downes, "it ought to have a very lofty, beautifully outlined and well-proportioned stone tower, in which case the island site would insure perpetual and uninterrupted view of this tower from every point of view, with the reflection of it in the surrounding waters." This is more satisfactory than his following statement that "many of the best Gothic cathedrals in the world suffer greatly from the encroachment of squalid surroundings," for often these enhance the effect; or than his nomination at this time of the desirable architect—an appropriate nomination, but premature. Contrasting the suggestive plans of Messrs. Shurtleff and Cram, he favors Cram's. The island, as the latter sees it, follows closely the Ile de la Cité—about a third the size of Shurtleff's—but is a better site in many ways than Notre Dame's. Put on the west end of the island, the cathedral's west front would face the river, with nothing between it and the water but a great open place planted with trees and shrubbery. If the western towers were approximately two hundred and twenty-five feet high, they would be at about the same distance from the water on either hand as their height. The island would gradually narrow to a point at this end, bringing the shores near enough to the cathedral to war-

rant the exclusive use of all the land at this extremity by the cathedral grounds and buildings. "Mr. Cram happily places the proposed Deerfield Street bridge to the westward of the cathedral site," says Mr. Downes, "and arranges for a circle (or a circus, as they call it in London) in front of the cathedral. His sketch shows cloisters, chapter house, lady chapel, library, and other customary connected structures. These extend both north and south of the main edifice, which has a long nave, a square apse, a rather faintly defined transept, and a lofty square tower at the crossing—not a mongrel pyramidal tower like that in the plan of the New York cathedral, but a true Gothic tower of the English type, which our good friend Baedeker always refers to as 'Perp.'" Mr. Cram would give his island high stone embankments crowned by balustrades, broken by statues, "with domes and towers of public buildings, civil and ecclesiastical, rising above a circle of trees, the whole reflected in the still water," etc. "Although this is still only a vision," remarks Mr. Downes, "it is to be remembered that no great public improvement of any kind ever created in the history of the world would have been realized if it had not been first conceived in the imagination of some one. Great schemes are always called visionary when they are first broached. It was not so very long ago that the Charles River basin improvement was called visionary. 'Your old men shall dream dreams, your young men shall see visions,' said the prophet Joel. There would be no progress if it were otherwise." And he has already noted that "no town in the world ever had such an opportunity to make itself world famous for stately beauty as Boston has in this Charles River basin."

A COURSE IN ARCHITECTURE AT TULANE UNIVERSITY

At the opening of the session of 1907-08 there will be offered in the College of Technology, a course in architecture, extending, like other regular courses, through four years, and leading to a collegiate degree. In addition to the required subjects to be taken under the present faculty, the special architectural subjects will be taught by competent, highly-trained specialists, as follows: Samuel S. Labouisse, Bachelor of Engineering (Tulane), Bachelor of Science in Architecture (Columbia), student in Rome and Paris; Moise H. Goldstein, Bachelor of Engineering (Tulane), Bachelor of Science in Architecture (Mass. Institute of Technology), student in Europe; and Professor William Woodward, of the College of Arts and Sciences. Lectures will be given during the course by local architects on practical subjects bearing upon the work of the professors.

The requirements for admission will be the same as those for other courses in the College of Technology, and, as in other courses, no student will be admitted as "special" who is under twenty years of age.

For further information apply to Mr. Richard K. Bruff, Secretary of the University.

JAMES H. DILLARD, Dean.

FOURTH EXHIBITION OF PITTSBURG ARCHITECTURAL CLUB

The Pittsburg Architectural Club is getting ready to hold its fourth architectural exhibition in the new art galleries of the Carnegie Institute during the month of November, 1907, and expects to have one of the largest National exhibitions ever held in this country. The special features will be:

1. The foreign section consisting of drawings from almost all European countries, especially France, England, Germany and Austria. From the latter two countries there are expected a number of most interesting interiors.

2. One gallery devoted entirely to the new Movement of Architecture of Exteriors and Interiors as developed in the United States.

3. A department for drawings from the leading technical schools and colleges.

4. A section devoted to sculpture and liberal arts, but in liberal arts this will be limited principally to original drawings.

The officers of the club this year are: President, Richard Kiehnel, of the firm of Kiehnel & Elliott, architects; Vice-President, D. A. Crone, architect; Secretary, Stanley Roush; Treasurer, James Macqueen; Chairman of Entertainment, Thomas Herron, architect. Any one who may desire to exhibit should address the exhibition committee, Richard Kiehnel, Chairman, 902 Publication Building, 209 Ninth st., Pittsburg, Pa.

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In Memory of Saint-Gaudens

To many beyond the immediate circle of his later years the death of Augustus Saint-Gaudens will have brought a sense of personal loss. He had a genius for friendship, and in the course of his brilliant career had established intimate relations with men in many walks of life; and no one who had ever known him well, however separated from him by these last years of illness and comparative retirement, can have felt anything other than a deep and continuing affection for him. To his friends the man himself seemed greater and finer, even, than his work, and the gap he has left in their lives will be harder to fill than his vacant place in American art.

No one who ever came in contact with him, no one who ever saw his portrait, can have missed one of his dominating characteristics, a fiery and compelling energy. That extraordinary head, with its heavy brow beetling above the small but piercing eyes, its crisp and wiry hair, its projecting jaw and great, strongly modelled nose, was alive with power. Not so readily discernible at a glance were the gentleness, the patience, the sweetness, the delicate sensitiveness and abounding sympathy, that were equally a part of his nature. He could be almost ruthless in the assertion of his will when he felt it necessary to be so, yet there was a tender-heartedness in him which made it distressing to him to inflict pain on anyone, and which made him strike the harder, when he did strike, to have it over with. He was entirely and wholeheartedly devoted to his art and, until his later years, had few other interests, one of the greatest alleviations of this time of suffering being his broadening and deepening love for nature and for literature. Music he had always loved. It was his devotion to his art which caused his rare acts of self-assertion, and it was this same devotion, no less than his natural kindliness, that made him ever helpful to younger artists who showed any promise of achievement. Even in his last months of pain he would summon what was left of his old strength to give a word of criticism and advice, above all a word of commendation, to anyone who needed the one or had earned the other. The essential goodness of the man was most felt by those who were closest to him, and he could command, as few have been able to do, the loyalty and love of the assistants upon whose aid he was more and more forced to rely. The faculty of communicating to them his ideas and desires, and of producing, through the hands of others, work essentially his own, became extraordinarily developed in him; at cost of what heroic effort and of what strain upon brain and nerve no one can ever know.

But however much his vivid and lovable personality may have meant to his friends, for the world at large it is his work that counts and will endure. He had earned for himself the recognized position not so much of our foremost sculptor as of our greatest artist, and indeed he was one of the first artists of his day in any country. It is not difficult to understand the feeling, though one may not entirely sympathize with it, that his

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art was scarcely sculpturesque in its essential quality. The modelling of the *morceau* was not especially his affair, and problems of mass and weight and structure, of stress and pressure and movement, were not those which most interested him. He did not, apparently, care greatly for the human figure as a figure—an affair of bones and muscles and integument—and, after his student days, produced no nude except the purely decorative Diana of the Madison Square Tower. But in the presence of such work as his what, after all, does it matter whether or not we think it sculpturesque, or whether we call it sculpture at all, or invent some new name for it? It is art, and art of the finest and most profound. So Ghiberti may be said to have produced pictures in bronze rather than true reliefs, but Michelangelo, a sculptor if ever there was one, thought the gates of San Giovanni worthy to be the gates of Paradise, and the world would almost as lief be without the reliefs of the Parthenon as without Ghiberti's pictures.

In an age too much given to naturalism, to the scientific temper, and to the display of technical ability, Saint-Gaudens was always and essentially the artist, the artificer of beauty, the searcher for perfection. First of all, and by nature, he was a designer, and exquisiteness of design was the quality he most consciously strove for—the quality on which he expended his unresting, unending, persevering toil. Never was artistic conscience more exacting, choice more fastidious, industry more unwearied, and the result was proportionate to the effort. There is nothing more lovely, more delicate in line, more ethereal in illusiveness of surface than his many small reliefs, portraits of women and children; nothing more purely and nobly beautiful than his caryatids or angelic figures; and his power of design rose with the dignity of his subject until it reached such unsurpassable expressiveness of composition as is shown in the Shaw Memorial or the equestrian statue of Sherman.

But that which makes the art of Saint-Gaudens so significant for us is a greater power than this conscious one of design; it is what must always be a more or less unconscious power—that of a penetrating and creative imagination. Without his strength of imagination he would have been a delightful decorative artist, worthy to be compared with the most charming of the Florentines; with it he became something much more than this—he became a great original force.

In its less uncommon form Saint-Gaudens's imaginative power shows itself in his grasp of character—in that sympathetic perception and unerring presentation of individuality which makes him one of the greatest modern masters of the portrait statue. His earliest important work, the Farragut, showed this command of characterization in only a slightly less degree than his more mature productions, and it reached its culmination in such masterly presentations of personality as the Lincoln and the Sherman. The instinctive knowledge of the significant elements of character, the elimination of the merely accidental, the nobility of feeling and the breadth of treatment evinced in them, place such figures as these among the world's few worthy monuments to its great men. Half French, half Irish, as he was by blood, Saint-Gaudens was wholly American in feeling. He had lived through the time of the Civil War and had felt the stir of it in his veins, and these representations of the heroes of that conflict are among the most national as they are among the most vital things that America has produced in art.

More evidently, though not more really, imaginative is the invention of such an ideal portrait as the Deacon Chapin—a portrait of such convincing verisimilitude that one has difficulty in believing that it is invented and that no such embodiment of New England puritanism ever existed in the flesh. But the highest flights of Saint-Gaudens's imagination were in the invention of such ideal or symbolical figures as the Angel of Death in the Shaw Memorial or the striding Victory of the Sherman group. It was a bold enterprise to place them where they are, mingling thus, in the same work, the real and the ideal, the

actual and the allegorical, but the boldness is justified by success. In either case the entire work is keyed to the pitch of these figures, and the figures themselves are no mere conventional allegories, no purely decorative accessories, but true creations. To their creator the unseen was as real as the seen—nay, it was more so. That Shaw was riding to his death at the command of duty was the only thing that made Shaw memorable—that Sherman was marching to a victory the fruits of which should be peace was the essential thing about Sherman. Death and Duty—Victory and Peace—in each case the compound ideal found its expression in a figure entirely original and astonishingly living, a *person* as truly as Shaw or Sherman themselves. He could not have left them out. It were better to give up the work entirely than to do it otherwise than as he saw it.

But the most profoundly original and imaginative of Saint-Gaudens's creations is that wonderful, enigmatic, brooding figure in the cemetery at Washington—a figure that has been called by many names and whose meaning is Mystery—a figure one would wish, were it possible, to place above his own tomb as the fitting memorial of his genius. Her enigma remains unsolved; but such an artist as he who made her is surely immortal in the only sense in which humanity can be sure of immortality. His mind, his spirit, his character, have taken on enduring forms, and are become a part of the inheritance of mankind. And even if, in the lapse of ages, his name should be forgotten—as are the names of many great artists who have gone before him—yet his works will remain; and while any fragment of them is decipherable the world will be the richer in that he lived.

Kenyon Cox.



THE NEW BUILDING OF THE INTERNATIONAL BUREAU OF AMERICAN REPUBLICS.
Washington, D. C.
Albert Kelsey, Paul P. Cret, } Architects.



Long Branch, N. J. HOUSE OF MR. DANIEL GUGGENHEIM—ENTRANCE DRIVE. Carrère & Hastings, Architects.



HOUSE OF MR. DANIEL GUGGENHEIM.
Long Branch, N. J. Carrère & Hastings, Architects.

The House of Mr. Daniel Guggenheim, at Long Branch

Among the many places on the Atlantic coast at which wealthy Americans gather during the summer months, Long Branch and its vicinity has always been one of the most popular. Its popularity depends, however, chiefly on the fact of its convenience to New York, for there are many other summer resorts on the coast that are cooler, pleasanter and more beautiful places in which to live; and its character, the kind of life enjoyed by its inhabitants and the class of houses they have built, has been determined chiefly by the fact that it can be reached from the big city in an hour, more or less. It has followed from this fact that the families who rent or have built houses on this stretch of coast are from the social standpoint somewhat promiscuous; and until recently the cottage life has been pretty well dominated by the hotels. Most of the houses were put up for the purpose merely of being rented, and were wholly without architectural interest or distinction, and those which were occupied by their owners were, for the most part, built by people who were indifferent to the architectural proprieties. It is only of late years that a few dwellings have been erected on the coast by architects of some standing, and of these houses that of Mr. Murray Guggenheim, designed by Carrère & Hastings, is the most elaborate and important.

The house of Mr. Daniel Guggenheim, which is illustrated herewith, is a much less expensive and elaborate building then the one mentioned above. It is like the great majority of the residences on the coast of New Jersey, built of wood, and it occupies a comparatively small site, which does not rise above the dignity of a villa plot. The house is, indeed, in the strictly American sense of the word, a villa—that is, a house intended only for habitation during a few summer months, and consequently of less interest to its owners than if it were a genuine country residence, occupied during a greater part of the year. A dwelling built for such a purpose becomes a hot-weather vacation house, on which the owner will not spend too much money. If he be a rich man he will want to have it furnished with all the luxury to which he is ordinarily accustomed, and he will wish it to look smart and at-

tractive on the outside; but the tendency will be to have the effect more a matter of show than of substance. It will naturally tend to express the somewhat superficial and occasional interest, which it arouses in the minds of its owners.

It is in the foregoing sense of the word that Mr. Guggenheim's residence is a villa, and the architects have managed to design for him a house which precisely expresses this character. The old wooden houses at Long Branch were usually shingled, but in the absence of



HOUSE OF MR. DANIEL GUGGENHEIM—A FOUNTAIN IN THE GARDENS.
Long Branch, N. J. Carrère & Hastings, Architects.

permission to use plaster, the architects clapboarded the house and so obtained the advantage of a white surface. The clapboarded walls are crowned by a roof with a sharp overhang carried on conspicuous brackets. A terrace connects two pavilions on either wing which serve as piazzas, while the enclosure formed by the two wings of the main building becomes a covered and colonnaded porch. It is all very compact, and very smart, just as a villa should be; and it is all very French. The garden is particularly emphatic in its suggestion of a French origin. Like so many of the gardens connected with houses designed by Carrère & Hastings, it is sunken, and is enclosed by heavy masses of informal shrubbery. Inside the basin, the plan consists merely of a parterre, cut by walks, which are bordered with flower-beds containing small annuals. The prevalent American taste in gardens runs to a scheme of planting very different from this in scale, effect, and character; but this sort of thing is appropriate to the surroundings. It is neat, gay and smart; and it is obviously intended for people to whom a garden is merely a place, in which to stroll with one's guests for a few minutes after dinner.

Like so many American houses, much more money proportionately has been spent on the interior than on the exterior; and the effect of the latter is more luxurious. The entrance hall is a spacious apartment, done in the Pompeian style, with a fountain surrounded by plants in the middle; and it must constitute a pleasantly cool and refreshing introduction to the rest of the house. Each of the other rooms is also strongly

characterized in some special style. There is a breakfast room, whose walls are covered with a lattice and which is furnished entirely in wicker. Here again, as in the hall, the observer is reminded that Long Branch is a hot place, in which cool-looking rooms are extremely grateful. The drawing-room, on the other hand, is modern French in its manner of treatment, and there is a sort of library and living-room done in Mission style. One would like to see these rooms treated more on their own merits and less in strict accordance with some particular style; but if it does not make very much difference to a client, an architect easily drifts into this sort of thing. While it gives the house both inside and out a somewhat ready-made appearance, as if the professional decorator and the professional gardener had somewhat too much to do with its make-up and appearance, it also contributes to that general impression of finished smartness which seems to have been the effect desired in the present instance.



HOUSE OF MR. DANIEL GUGGENHEIM—BREAKFAST ROOM.

Long Branch, N. J. Carrère & Hastings, Architects.



Long Branch, N. J. HOUSE OF MR. DANIEL GUGGENHEIM—DETAIL OF FRONT. Carrère & Hastings, Architects.



HOUSE OF MR. DANIEL GUGGENHEIM—LIVING ROOM.

Carrère & Hastings, Architects.

Long Branch, N. J.



Long Branch, N. J. HOUSE OF MR. DANIEL GUGGENHEIM—ENTRANCE HALL. Carrère & Hastings, Architects.



HOUSE OF MR. DANIEL GUGGENHEIM—DRAWING ROOM. Carrère & Hastings, Architects.

Long Branch, N. J.



Long Branch, N. J. HOUSE OF MR. DANIEL GUGGENHEIM—BEDROOM. Carrère & Hastings, Architects.

The House of Mr. Marshall Slade, at Mount Kisco, N. Y.

Of late years New Yorkers have come to realize that they have neglected one of the most wholesome and beautiful country neighborhoods in the vicinity of that city. Long Island, the Hudson River Valley and the hill country of New Jersey have all been occupied by several generations of well-to-do residents of New York; but until recently the higher and equally beautiful country along the line of the Harlem Railroad beyond White Plains has not received the attention it deserved. Only within a few years have many estates in that vicinity of from fifty to several hundred acres been bought by New Yorkers, and used as sites for new and handsome houses; but this recent development has been very rapid, as there is every reason why it should be. The neighborhood is peculiarly adapted to the needs of a New York family, who prefer a country residence near the city, and who want the advantages of a considerable elevation and a very beautiful landscape.

The character of this landscape may be inferred from one of the illustrations given herewith of the house of Mr. Marshall Slade. The view looking over the parapet contained on page 268 discloses an undulating country-side, neither soft nor rugged in its effect, finely and firmly moulded in its contours, and with pleasant alternations of woodland and field. The numerous small hills into which the countryside is distributed afford many attractive sites for houses; and on one of these hills the Slade residence is situated. This particular hill is a fairly prominent one, and any house situated on its summit is conspicuous from many different points of view in the neighborhood. Before the house was built, the crown of the hill was covered with a thick growth of tall oaks, which had to be thinned out for the purpose of making it habitable, and which afterwards constituted an important condition of an effective design. The architectural problem was to place on the hill a house which would look well at the considerable distances from which it was seen, which would hold its own in relation to the trees, and which at the same time would make the landscape appear at its best to the inhabitants of the house.

The architect, Mr. Charles A. Platt, has designed a house and garden which is admirably wrought to meet these conditions. The first thing which will strike an observer of the house is the emphatic simplicity of its appearance. It is a long regular plaster building, rectangular in plan (barring only a service extension), with porches at both ends running up through two stories, and with a roof which slopes only in one plane on each side. The cornice line is sharp and emphatic, and applied architectural detail is reduced absolutely to a minimum. The reason for these dispositions will be understood, if only the determining conditions are borne in mind. A house situated in a conspicuous place with big trees in its immediate neighborhood must necessarily make its effect by simple and emphatic means. Many architectural expedients which ordinarily would be very effective, become, under such conditions, wholly insignificant, and the peculiar success of Mr. Slade's house can be traced precisely to the manner in which this essential purpose of an interesting design has been disentangled and been made of dominant importance. The architect has dared to be simple even to the point of bareness; but the simplicity never becomes either attenuated or empty, because of the strength with which the essential elements of the design have been handled. There can be no doubt that the great majority even of the better American architects do not dare to be sufficiently simple. They can be compared to writers, who depend too much upon figura-

tive language and rhetorical devices, instead of upon the force derived from a clear, emphatic and well-modelled expression of what they have to say. Perhaps Mr. Platt's highest single merit as a designer is the increasing simplicity of his buildings; and that is at least one reason why his large influence upon contemporary American practice is so wholesome.

If the design of the house has been wrought with care and success to make it effective under its peculiar conditions, the plan has been wrought with equal care to the end that its occupants may enjoy to the utmost the advantages of the location. The most beautiful view to be seen from the hill looks towards the west, and what a fair and smiling country is to be seen in that direction may be inferred from the accompanying illustrations. The house was, of course, faced full south for the convenience and comfort of its inhabitants, and the porch was placed on the west end so as to command the landscape at its best. The approach consequently leads inevitably to the north side of the building, and the driveway terminates in a court with a service gate at one end. The house is entered by means of a hallway, panelled up to the ceiling in whitewood. To the right is the library, to the left the dining-room, while straight ahead and leading to the south terrace is the living-room. The living-room gives also upon an enclosed eastern porch which can be used as an out-door dining-room; but its place in the plan is determined chiefly by its relation to the terrace on the south side. The treatment of this side of the building is very individual, and much of the success of the garden is due to the manner of its location in relation to the house and to the view. The landscape looks best, as we have remarked, to the west and to the east. The trees consequently have been cleared so as to obtain for some distance a clear sweep in that direction. A brick terrace runs the whole length of the house, with the flower-beds immediately in front at a lower level, while beyond there is a large open space of green grass, enclosed by a parapet, and broken only by the remaining trees and a pool. Thus the view is opened up and defined, and the flower-beds are placed in the one location in which they could be effective, while in the general effect the sense of open spaces and broad sweeps of country is checked just sufficiently by the trees and the parapet. The landscape architecture, like that of the house, is both simple in its elements and large in its scope, and it is determined at bottom by considerations similar to those which give character to the building.

The danger, which a building of such emphatic simplicity of design runs, is that of losing its domestic atmosphere and becoming monumental. This danger has been skillfully avoided by covering the face of the building with a lattice, which eventually will carry the vines. It is extraordinary what a happy effect the skillful use of this simple device has produced. The façade of the building contains an unusually large proportion of unbroken wall space, and the lattice imparts scale and variety to all of these unbroken surfaces. Moreover it prevents the strong lines of the sashes, especially in the porches, from becoming disagreeably emphatic. Without the lattice the whole appearance of the house would have been beautiful in a simple and somewhat severe manner; but with the lattice the beauty of the building becomes much more genial and familiar. It is the touch which adds to the final grace and charm, to the distinction, style and the dignity of the building, and on the whole, out of Mr. Platt's many successful houses, we know of none which is more successful than the house illustrated herewith of Mr. Marshall Slade.



HOUSE OF MR. MARSHALL SLADE—THE ENTRANCE COURT.

Mt. Kisco, N. Y. Chas. A. Platt, Architect.



Mt. Kisco, N. Y. HOUSE OF MR. MARSHALL SLADE—THE ENTRANCE DOOR. Chas. A. Platt, Architect.



Mt. Kisco, N. Y. HOUSE OF MR. MARSHALL SLADE—THE SOUTH FAÇADE. Chas. A. Platt, Architect.



Mt. Kisco, N. Y. HOUSE OF MR. MARSHALL SLADE—THE TERRACE AND GARDEN. Chas. A. Platt, Architect.



HOUSE OF MR. MARSHALL SLADE—THE WEST PORCH.
Mt. Kisco, N. Y. Chas. A. Platt, Architect.



Mt. Kisco, N. Y. GARDEN OF MR. MARSHALL SLADE—THE WEST VIEW. Chas. A. Platt, Architect.



Mt. Kisco, N. Y. HOUSE OF MR. MARSHALL SLADE—THE LIVING ROOM. Chas. A. Platt, Architect.



THE HALL.



HOUSE OF MR. MARSHALL SLADE—THE DINING ROOM.
Mt. Kisco, N. Y. Chas. A. Platt, Architect.



BEDROOM.



HOUSE OF MR. MARSHALL SLADE—ENCLOSED VERANDA.
Mt. Kisco, N. Y. Chas. A. Platt, Architect.



Cornish, N. H. HOUSE OF MR. MAXFIELD PARRISH. Designed by the Owner.



The House of Mr. Maxfield Parrish

The house of Mr. Maxfield Parrish, illustrated herewith, is one of the few American houses possessing genuine architectural character, which has been designed, not by a professional architect, but by its owner and inhabitant. It is common enough for men and women with ideas and tastes of their own either to build little cottages or bungalows from their own designs, or to do over, both inside and out, old buildings which they purchase, but the instances of an American designing a house and garden of some architectural adequacy wholly without professional assistance are so rare as to be almost negligible; and we imagine that similar instances are not very much more numerous in Europe. Ordinarily a man does not dare and does not care to be his own architect any more than he dares to be his own physician or his own lawyer; and we all know what kind of a client is a man who prefers to be his own lawyer. Nevertheless, when confronted by a house, such as Mr. Parrish's, one cannot help regretting that his example has been so little followed, for it is perhaps only in this way that a man's residence can be made an entirely genuine personal expression. An architect who seeks to make a house the expression in any genuine sense of his client's personality is a fool for his pains. It is his business to express his own individual architectural vision and point of view, and his own architectural point of view will be permanently effective, just in so far as it assumes somewhat the character of an impersonal style and becomes beautiful. But while such is the duty of the contemporary architect, the resulting building is frequently ill-suited to its owner and inhabitants, as may be inferred by the manner in which very beautiful rooms are frequently furnished. In such instances the architectural value of the building depends precisely on the fact that it wholly fails to suit the owner. What the owner's personality needs is not to be informed and expressed, but to



Cornish, N. H. HOUSE OF MR. MAXFIELD PARRISH. Designed by the Owner.



Cornish, N. H. GARDEN OF MR. MAXFIELD PARRISH. Designed by the Owner.

be educated; and to inhabit a house which is the embodiment of a better taste than your own is a most insidious means of education. The resulting lack of congruity between a man and his house is frequently, however, very distressing, and an instance in which such a lack of congruity is entirely avoided is correspondingly refreshing. The peculiar merit of Mr. Parrish's house is that it is an entirely genuine individual expression, while at the same time reaching in certain respects veritable architectural distinction. It is not merely personal and charming; it has beauty and style. Its merits are not merely a matter of good taste. They indicate on the part of its designer an imagination which moves freely and vigorously in the high region of architectural form.

Mr. Maxfield Parrish has made his reputation as a painter and an illustrator; but his work is not without suggestion that he might perhaps have done quite as well as an architect. He seems to be gifted with a sense of form, which is somewhat independent of the vehicle of expression, in which it happens to work, while at the same time he possesses preeminently that feeling for the value of materials and that aptitude for technical processes, without which an imaginative gift is artistically sterile. However that may be, the character of his paintings early afforded indication of an instinctive pleasure in architectural forms. He has always peopled his fanciful landscapes with buildings, which were unmistakably a part of their surroundings; and in this respect his work and training as a painter gave him an advantage over an ordinary architect. The necessary severity of the regular architectural training renders any but an unusually gifted designer somewhat callous to those values of a building in relation to a landscape which cannot be studied and expressed on paper, and it is precisely these values, to which a painter, like Mr. Parrish, who has a natural sense of architectural form, is peculiarly sensitive. The quality which makes his house architecturally interesting is not the formal merit of its design, but its composition in relation to its location and to the surrounding trees. It is a veritable country house—a house that is charming and beautiful, because it looks beautiful when seated on its terrace, in the midst of its oaks, and overlooking its rich and gracious New Hampshire landscape. In designing his house, Mr. Parrish may have done certain things which a trained architect would have avoided; but he has, also, attained a success, which of its kind is extremely rare in American domestic architecture, and this success, strongly characterized as it is by Mr. Parrish's individual taste, possesses a quality which goes beyond mere individuality. It is very personal, it is very local, it is very American; yet it is also remotely but palpably suggestive of certain classic types of landscape design.

No analysis can begin to do justice to the kind of success which Mr. Parrish has achieved; but one source of its interest to the critic of contemporary American architecture is the combination which his place exhibits of formal and picturesque qualities. It is one of the misfortunes of the majority, even of the better American house of to-day, that these qualities seem to be, as a rule, mutually incompatible. The architect, with formal academic tendencies, is usually incapable of imagining picturesque and vigorous forms, while the so-called free designers seem to be equally incapable of understanding the value of coherent composition and of the formal treatment of the grounds in the immediate vicinity of a house. But Mr. Parrish with all the freedom of his imagination is so familiar with the best Italian gardens and has fallen so much under their spell that he fully appreciates the necessity for the complete composition of a house in relation to its site and of the use of highly artificial and formal means; and there are few better illustrations of the value of a terrace, enclosed by a wall, as the place from which a beautiful landscape should be seen, than that afforded by the terrace in front of Mr. Maxfield Parrish's house.

In examining the pictures which accompany this article, the reader must be warned aginst one possible source of



HOUSE OF MR. MAXFIELD PARRISH. Designed by the Owner.

Cornish, N. H.



HOUSE OF MR. MAXFIELD PARRISH. Designed by the Owner.

Cornish, N. H.

misapprehension. In spite of the comparative completeness of the effect of Mr. Parrish's place, it has been built up very gradually and is at the present time far from finished. In the beginning the house consisted merely of a living-room, a kitchen, a couple of bed-rooms and a porch. and the site consisted of a rocky hillside and some oak trees. It has taken ten years of slow but almost continuous work to make the place what it is; and obviously very much remains still to be done—particularly by way of finishing the terrace, improving the approach, of grading near the house and of adding certain architectural detail to the buildings. The work of the last five years has almost totally transformed the original house, and it may well be that a photograph taken five years from now will show almost as much of a transformation scene. Mr. Parrish does not build like a contemporary American, who expects to be supplied with a completely finished house and a planted garden within a year from the date of breaking the ground. He builds slowly, as our forbears did, as the time and the occasion warrants, and part at least of his success is due to his leisurely and patient method of not taking the next step until he is good and ready. This again is an advantage, which is due largely to the fact that he is designing his own place, and living in it while it is being built. He never feels obliged to quarrel with his architect, to bully him, to hurry him or to abuse him; and in this respect he is, we believe, a model client.

That part of the house most recently built is the west wing, which contains the living-room illustrated herewith. We wish that the photographs did justice to this interior. It is a large apartment about twenty feet wide, twice as long and some fourteen feet high. The walls are paneled for about three-fifths of their height; and the panels, which are of generous size, are painted a dull gray-black color, which is both luminous and solid. The plaster, immediately above the panels, has been subdued to a white, which is almost a gray, and whose tone prevents the room from being split in two by the line of the panels. The big panels, which run up to the ceiling on the north wall, and which screen a small stage, also contribute to the same purpose. The floor has been painted a dark red, which has been prevented from counting too strong by the rugs, while the heavy beamed ceiling is lighted by some gold between the beams and some blue on their faces. The ceiling remains, perhaps, a little heavy and oppressive still; but the room in its present condition, like the grounds around the house, is to be regarded only as the beginning. Its designer will little by little improve and complete it, as suits his fancy and taste, and after it has been occupied for five years, it will look, we may be sure, very different. The point is, however, that what he has already done constitutes a fine, and in a very real sense, a noble room. It is designed not merely for a pretty or charming effect, but, so far as the conditions permitted, in a big and adequate style. At once in its dimensions, in its proportions, and in its manner of treatment, it is the work of a man who is mastering the fundamental architectural values; and with all its dignity it is eminently a comfortable and livable room. Interiors of this kind are sufficiently rare in America, and that one of them should have been designed by an amateur architect is sufficiently remarkable. If Mr. Parrish, the architect, is to be congratulated on his client, Mr. Parrish, the client, is equally to be congratulated upon his architect.



Cornish, N. H.

HOUSE OF MR. HOWARD HART.



THE GARDEN.

The House of Mr. Howard Hart, at Cornish, N. H.

It is always interesting and instructive to observe what can be done by simple means and at a very small expense to make a charming country house, and in the case of Mr. Howard Hart's house, which is illustrated herewith, there can be as little doubt about the charm of the effect as there is about the simplicity of the means. He has taken an old New England farmhouse of the usual kind, and he has done just enough to it and to its surroundings to bring out its modest but manifest possibilities. These farmhouses, as we all know, were frequently in themselves well-proportioned little buildings, with a certain definite architectural character, which counted in spite of the neglect with which they have been usually treated by their inhabitants; but whether from poverty, from the lack of the proper educational influences, or from sheer insensibility, the farmer rarely made any attempt to give his neat little house the advantage of a proper setting. At its best the New England farmhouse was nothing more than tidy; and the planting in its vicinity never consisted of more than a few trees, a lilac or two, and occasionally a border of annual flowers. The effect is usually so bare and arid that one feels like weeping at the sight of such widespread neglect of the decent comeliness of domestic life.

Mr. Hart has taken a typical farmhouse, and brought out all of its good qualities. The site selected was an old orchard sloping irregularly towards the east; and a terrace was consequently built, in order to provide a certain amount of flat space in front of the house. This terrace is almost the whole thing, and yet it has made all the difference in the world to the appearance of the building. It both enables the house fit its site, and at the same time provides Mr. Hart with space for some very attractive flower beds. Besides the building of the terrace nothing was done to the house, except to break a couple of dormer-windows through the roof and to add a porch to one end. But vines and shrubbery were planted in the right places, the entrance door was enclosed with a lattice, and the lawn was almost encircled with flower beds, and it would be difficult to find elsewhere in this country an effect equally as charming obtained by the use of such extremely simple and inexpensive means. People who propose to "do over" New England farmhouses would do well to examine this example. They could scarcely better the instruction; but they could learn there from the cost of architectural interest, of which such farmhouses are capable and the way in which this interest can be brought out.



HOUSE OF MR. HOWARD HART—THE LIVING ROOM. Designed by the Owner.

Cornish, N. H.



RESIDENCE OF MRS. A. E. UNDERWOOD.

Lake Forest, Ill. Frost & Granger, Architects.

The Underwood House, at Lake Forest, Ill.

There is probably no suburb of any large city in the United States in which there is as large a proportion of architecturally interesting houses as at Lake Forest, in the vicinity of Chicago. It has for the most part been built up after the present generation of Chicago architects had obtained their standing, and it expresses on the whole the best architectural standards prevalent in the west at the present time. These standards are more varied and less consistent than they are in the east. The best western work exhibits a more mobile intellectual standpoint, and a constant desire to escape from the effect of mere tradition, but it is also continually showing an increasing sense of effective architectural form and an increasing skill in the use of materials.

This increasing skill in the use of materials and this refined sense of architectural form are exhibited in the Underwood house, designed by Messrs. Frost & Granger. Nothing could be simpler than this rough plastered house with its projecting vestibule and its modest entrance, but the very bareness of its simplicity is attractive and is informed by good taste. The apple and other trees in the immediate vicinity of the house have diminished the need of architectural detail, and in the absence of a large amount of planting, and a very complete laying out of the grounds, it is better for the house to remain unadorned as it is in the midst of its trees and the surrounding lawn. Even the enclosed porch is made as little conspicuous as possible. It consists merely of a lean-to against the house, made by a plaster wall on the two sides, and four columns, which retire modestly behind the line of the walls. The extreme simplicity of the treatment is perhaps a little arid, particularly so far as the front of the house is concerned, but the impression one gets of excessive eliminations by no means destroys its charm and this charm accompanies one to the inside of the house. The living room particularly is both firm and delicate in its handling; and it is a great pity that the hangings and the furniture do not carry out as well as they should the refinement of the architectural treatment.



Lake Forest, Ill. RESIDENCE OF MRS. A. E. UNDERWOOD. Frost & Granger, Architects.



Lake Forest, Ill.

RESIDENCE OF MRS. A. E. UNDERWOOD.

Frost & Granger, Architects.



RESIDENCE OF MRS. A. E. UNDERWOOD. Frost & Granger, Architects.

Lake Forest, Ill.



Lake Forest, Ill. RESIDENCE OF MRS. A. E. UNDERWOOD. Frost & Granger, Architects.



A HOUSE AND GARDEN IN CORNISH, N. H.—THE SOUTH AND WEST SIDES. Chas. A. Platt, Architect.



A HOUSE IN CORNISH, N. H.

Chas. A. Platt, Architect.

A Cornish House and Garden

The town of Cornish, on the New Hampshire side of the Connecticut River Valley, has a reputation of its own for its houses and gardens. In this neighborhood are located almost a score of country places which have been designed with some regard for the consistency and the propriety of their total effect. The houses, with their approaches and gardens, have all formed part of a lay-out which has been carefully planned in advance, and which was supposed to take account of all the conditions relevant to the convenience of their inhabitants and the effectiveness of their appearance. If there has been any failure on the part of these people to bestow upon their places the final grace of complete propriety, that failure has been due more often to the lack of means rather than to lack of ability or will. For the country places in Cornish are not large and the people are not rich. In order to obtain the desired completeness of effect, they have frequently been obliged to build of wood, where they would have preferred to build of some more enduring material, and in many cases essential parts of the completed design have been omitted, merely because the owner could not afford to supply the omission. The house and garden situated in Cornish, which is illustrated herewith, is distinguished in these respects from many of its neighbors. The architectural design has been more completely carried out than has been the case with many other places in the vicinity; and it has been carried out in more permanent materials. And it obtains from this comparative complete-



A HOUSE AND GARDEN IN CORNISH, N. H.—THE ENTRANCE COURT. Chas. A. Platt, Architect.



A HOUSE AND GARDEN IN CORNISH, N. H.—THE HOUSE FROM THE GARDEN. Chas. A. Platt, Architect.



A HOUSE AND GARDEN IN CORNISH, N. H.—THE GARDEN. Chas. A. Platt, Architect.



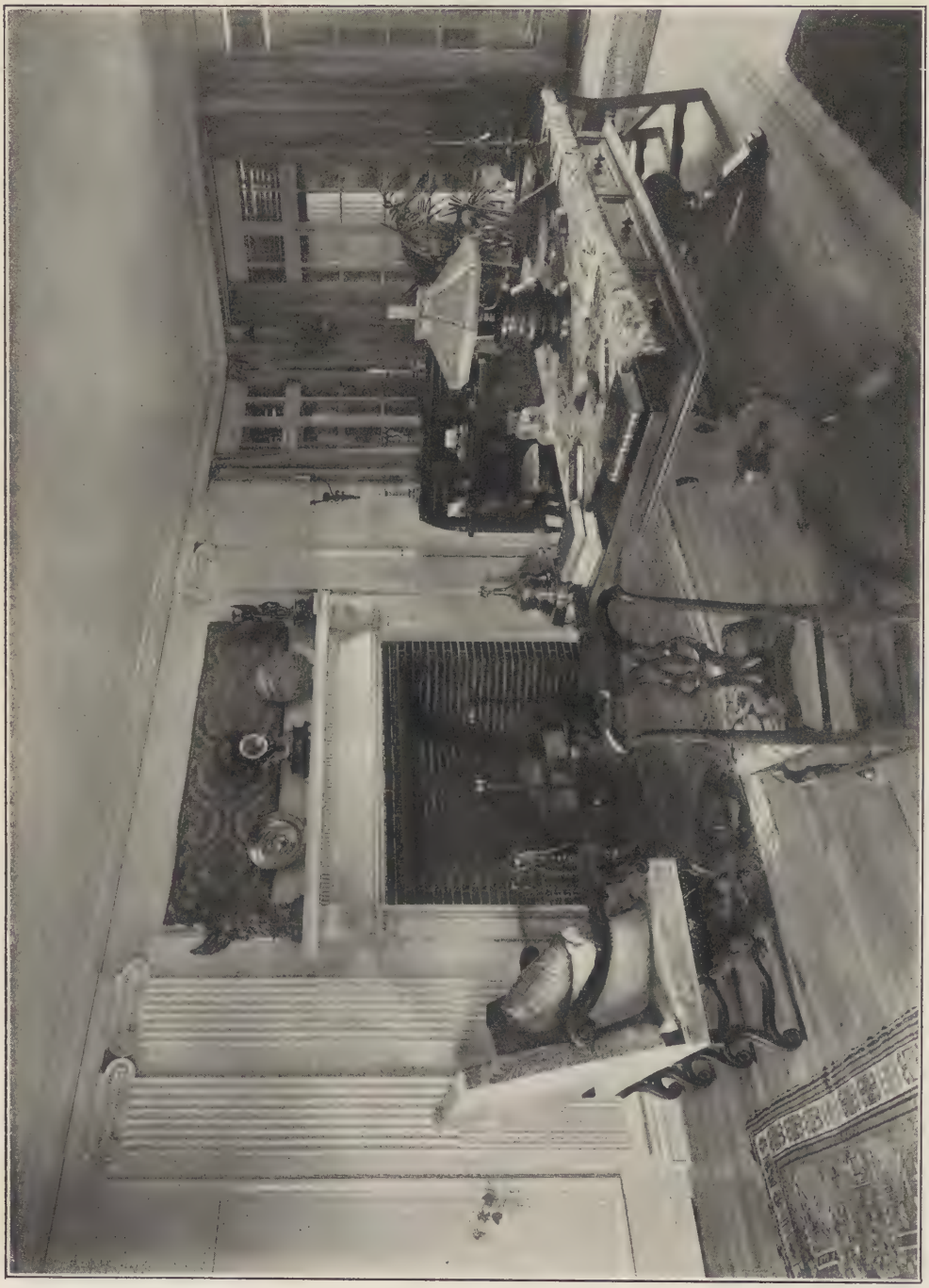
A HOUSE AND GARDEN IN CORNISH, N. H.—THE PORCH COLONNADE. Chas. A. Platt, Architect.



A HOUSE IN CORNISH, N. H.—THE STUDIO.
Chas. A. Platt, Architect.



A HOUSE IN CORNISH, N. H.—THE ENTRANCE HALL.
Chas. A. Platt, Architect.



A HOUSE IN CORNISH, N. H.—THE LIVING ROOM. Chas. A. Platt, Architect.

ness and substantiality of execution, a manifest increase of architectural dignity.

The house is situated on the side of a steep and wooded hill overlooking the Connecticut River Valley, and facing Mount Ascutney. Surrounded as it is by trees, it is not so visible from as many points of view in the neighborhood, as, considering the altitude of its location, might have been expected. But whenever a glimpse can be obtained of the house—and such glimpses can often be obtained from the hills on the other side of the Connecticut River—one is immediately impressed by the admirable manner in which its masses compose with those of the immediately surrounding landscape. The house neither projects sharply, as if it were trying to make up for the comparative insignificance of its bulk by the impertinent emphasis of its appearance. Neither does it disappear into the surrounding foliage, as if it were ashamed of its intrusion into the landscape. It fits its site admirably precisely, because it asserts itself in an architecturally appropriate way without becoming thereby an unnatural excrescence, and its propriety does not depend upon any merely picturesque characteristics. Picturesque the house certainly appears from the hills on the other side of the river, but its measure of picturesqueness is not obtained by any emphasis of irrelevant or occasional features in the composition, and consequently by any sacrifice of architectural dignity. The design is nothing if not compact, and its effectiveness is dependent largely upon its strictly architectural consistency.

The Cornish landscape consists for the most part of bare hill pastures alternating with patches of woods; and the majority of the houses have, for obvious reasons, been detached from the woods and situated in the open. The house, which is illustrated herewith, has been located practically in the woods on the side of a steep hill; and the peculiarities of such a location increased the difficulties of any complete architectural treatment of the grounds in relation to the house. The land immediately surrounding the buildings is rough and broken, and required a great deal of levelling, clearing and grading before it could be fitted into a well-formed architectural design. A large amount of this kind of work was undertaken for the purpose of opening up vistas, obtaining the necessary approaches, and the construction of gardens and out-buildings; but if any fundamental criticism is to be passed upon the place, it is that the immediate surroundings of the house have not been as completely subdued to the architectural design as was desirable. Inasmuch as the house and grounds are an example of formal—that is, fully formed—design, any look of wildness, any suggestion of unsubdued nature in the immediate vicinity of the house was inappropriate. As so many of the Italian villas prove, there is no reason why a strictly formal design cannot be incorporated on a rough and broken site; but it can only be done by means of grandiose architectural expedients and at a very large expense. In the present instance, the cost of carrying out a fully formed design was more than the owners were justified in incurring. The house and grounds are more completely and substantially finished than are the other country places in Cornish; but there are still certain omissions which must be charged chiefly to a deficiency of means. The house would have looked better, for instance, with a straight level approach; but as a straight approach meant the removal of a rocky hill-top, the architect and the owner were obliged to be satisfied with a less effective irregular driveway, terminating in a formal court. In the same way the view from the loggia looking towards the mountain would have looked better, in case the immediate foreground had been subjected to more drastic treatment; but here again the ground was intractable and the expense excessive.

After an observer has reached the court, he will no longer have any sense that anything essential to a complete layout has been omitted. The house consists of a central body, with two projecting wings, and consequently it forms in its plan a natural enclosure on this side. The definiteness of this enclosure is in-

creased by the garden wall on the left, while on the right, but at a greater distance, there is the wall of the kitchen yard. The house itself is a low two-story plaster building, without any dormers. In style it is suggestive of Mr. Platt's earlier work, when he was more completely under the influence of Italian models, than it is of some of his later houses. The simple and quiet beauty of the effect has been obtained by somewhat elaborate means—as any one may observe by studying carefully the different projections of the body of the house and the wings and their influence in giving different planes to the roof and an interesting modeling to the whole building.

From the entrance hall, a passage leads straight to the loggia on the south side of the building. The hallway and the stairs to the second floor are to the right of the door; and the stairway itself consists of an elaborately and beautifully carved reproduction of the Cluny staircase. In the left of the hall is the living room, which occupies the whole depth of the house and through which access is obtained to the library in the left wing. The library in turn leads to the studio, at the north end of the left wing, and gives upon the garden. The right wing contains the kitchen, pantries and dining-room. The loggia extends along the whole front of the south side of the house; and it is treated so as to form two outside rooms, connected by an open colonnade. This arrangement, which is both very convenient and very effective, is made possible by the different projections of the different divisions of the building. On this side it is the main body of the house which projects, while the two wings are set back; and the two outside rooms are placed in the recesses formed by the resulting angles. One of these exterior rooms adjoins the kitchen and the dining-room and becomes naturally an open-air extension of that room, while the other adjoins both the library and living-room, and gives immediately upon the garden. It is an extremely complete and well-wrought plan. The architectural effectiveness of some of the rooms had to be sacrificed partly to the limitation of space and partly to the demands of convenience; but the sacrifices are small compared to the economy of the plan and the easy and inevitable manner in which this plan leads to a happy exterior effect.

The views on the south and west sides of the house are of extraordinary beauty, and one of the chief objects of the design was to define and frame these views in an effective manner. The illustrations cannot, unfortunately, give any idea of the success of the architect in this respect. A glimpse of the landscape is obtained in one or two of the photographs, but it affords no notion either of the strength of the framing or the beauty of the view. It will be noticed that heavy rectangular supports have been used for the roofs of these outdoor rooms; and the substantial dignity of these piers contributes amazingly both to the sense that they are really outdoor rooms instead of verandahs, and to the effective appearance of the landscape. To the east and southeast of the house the land rises, instead of falls away, and the heavy woods cut off the view entirely. Advantage has been taken of the screen on this side in order to obtain proper surroundings for the garden. As a result of this plan, the garden has the great advantage of being immediately connected with the house, of never entering into competition with the beauties of the landscape, and of being sharply and interestingly defined on every side. To the west, it is bounded by the house, and the wall separating it from the entrance court. To the south, one looks over a low wall into the trees, and over the trees towards the mass of Mount Ascutney. To the east, a heavy screen of foliage lies immediately beyond the bounding wall, and to the north a more elaborate, but less definite pergola and screen effectively terminate the garden, while at the same time tempting the eye into the more open woods beyond. When this garden is fully grown, it will be one of the most beautiful in the country; and its beauty will consist precisely of the admirable manner in which it has fitted to the plan of the house, and to the layout and the planting of the surrounding land.



SINNISSIPPI FARM—HOUSE OF COL. FRANK O. LOWDEN.
Oregon, Ill.
Pond & Pond, Architects.

The House of Col. Frank O. Lowden, at Oregon, Ill.

The place of Col. Frank O. Lowden, at Oregon, Illinois, belongs to a class of country estates which are numerous in the East, but which are as yet comparatively rare in the West. It is an estate of large acreage, situated in a fine, well-wooded and well-watered country, which the owner uses, not merely as a residence but as a combination of dwelling and farm. The American architect will always have his best opportunity in country places of this kind. The owners thereof are necessarily well-to-do men, who have large interests in the city, but who take so much satisfaction in country life that they wish to enjoy its more permanent and wholesome pleasures—the pleasures, that is, immemorially connected with the proper cultivation of the soil, the raising of stock, and the growth of flowers. They are willing to make comparatively large sacrifices in order to get the best out of their country places. They need spacious houses, built for residence during every month of the year; and these houses can be so situated as to appear to their best architectural advantage.

The result of these favorable conditions can be seen plainly in the dwelling which Messrs. Pond & Pond have designed for Col. Lowden on Sinnissippi Farm. The country side at Oregon, Illinois, is rough and well wooded, but it is not hilly. The house, consequently, has been situated not on a height but near a very beautiful oak grove, and its effectiveness depends in large measure upon its relation to these trees. The reader will notice how important these trees are for the purpose both of giving a surrounding and a background to the house and for the purpose, also, from certain points of view, of giving scale to its masses. Trees of this kind near a house bestow upon it immediately a con-

firmation in respect to the landscape which otherwise could be obtained only by years of care.

The house itself is irregular in plan, and from several points of view irregular in design; but there is a certain rhythm to its irregularity which is very pleasing. The driveway leads to a covered porch, the roof of which is carried by strong concrete piers; and along the front of this side of the house is a paved terrace enclosed by a substantial concrete wall. The stair hall runs up through two stories and is carried through the house to the garden beyond. To the right of the hall is the living-room, which occupies one wing of the building, and to the left the music-room. Beyond the living-room the hall by means of two arms reaches the dining-room on the left, and to the library on the right. These two rooms, again, each occupy separate wings, except, of course, that the dining-room is immediately connected with another wing in which are contained the pantry and the kitchen.

The plan is a very ingenious one, and is carefully calculated both for the comfort of the inhabitants of the house and for the kind of effect desired by the architects. The hall is, as it should be, the clearing-house around which the rooms are centered and by means of which alone a passage from one room to another can be obtained. No one room is entered by means of another room, but each is detached and preserves its own individual dignity. The most detached room is the library, and that again is as



SINNISSIPPI FARM—HOUSE OF COL. FRANK O. LOWDEN.
Oregon, Ill. Pond & Pond, Architects.

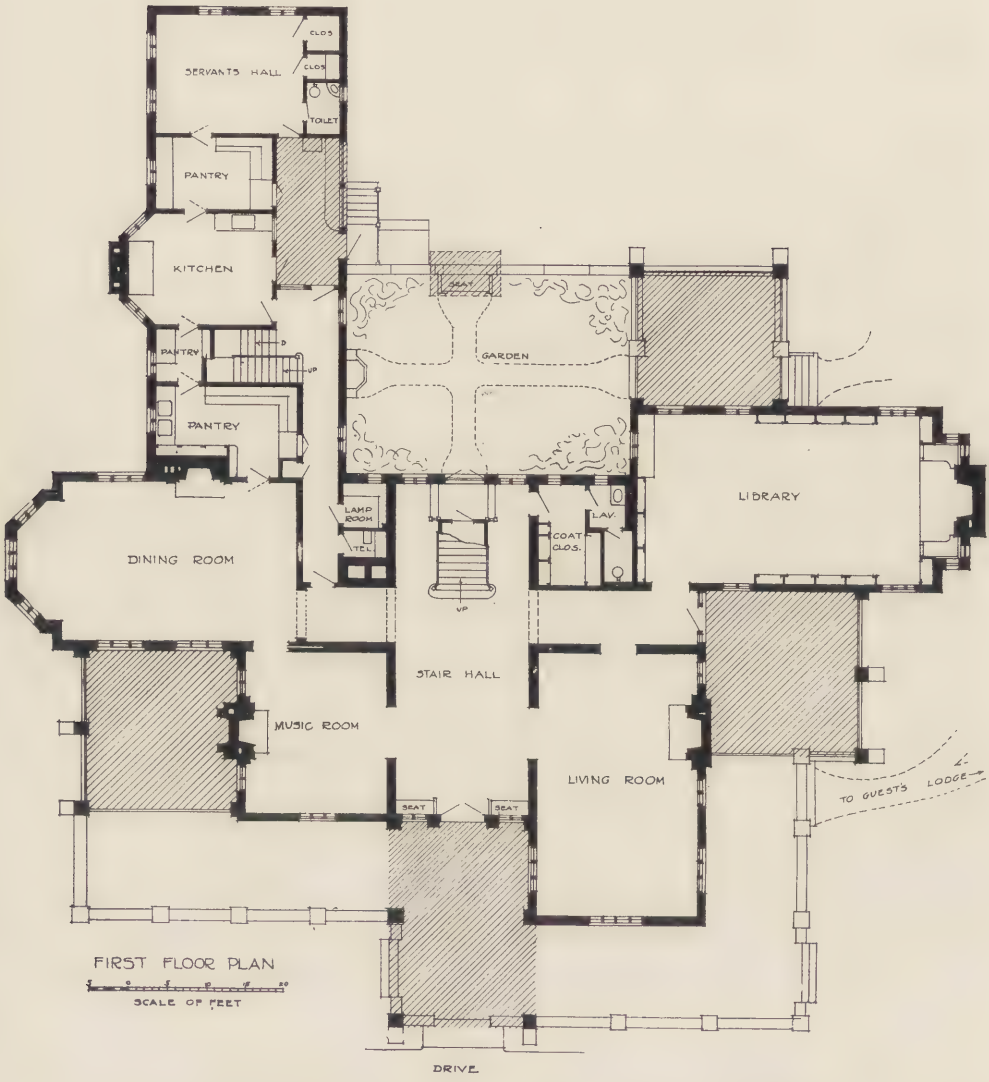
it should be. The several wings, in which these detached rooms are housed, form angles with each other, and into these angles are fitted porches, which because of the manner in which they are enclosed and backed up, become veritable out-door rooms. Thus in the angle formed by the music-room and the dining-room is a piazza, which, because of its situation, can be used, if desired, as an out-door dining-room. Again the angle formed by the library and the living-room is converted into another porch, which serves both of these rooms, while on the other side of the library is a third verandah. This third verandah constitutes with the kitchen wing and the main body of the house the enclosure for a small but amusing garden. Altogether it is one of the most convenient and compact plans which we have ever seen, and equally interesting is the sturdy simplicity of the treatment. The lower floor is constructed of cement, which has been left entirely without ornamentation. The only exception to this use of cement for the ground floor is one end of the dining-room which is of brick trimmed with limestone. On the other hand, the wings containing the living-room and the library are composed above the first floor of timbered plaster, but in the kitchen wing this treatment is varied by the use of shingles. The irregularity of the plan makes the house look very much better from some points of view than from others, but this irregularity affords such a convenient interior arrangement that it fully justifies itself.

William Herbert.

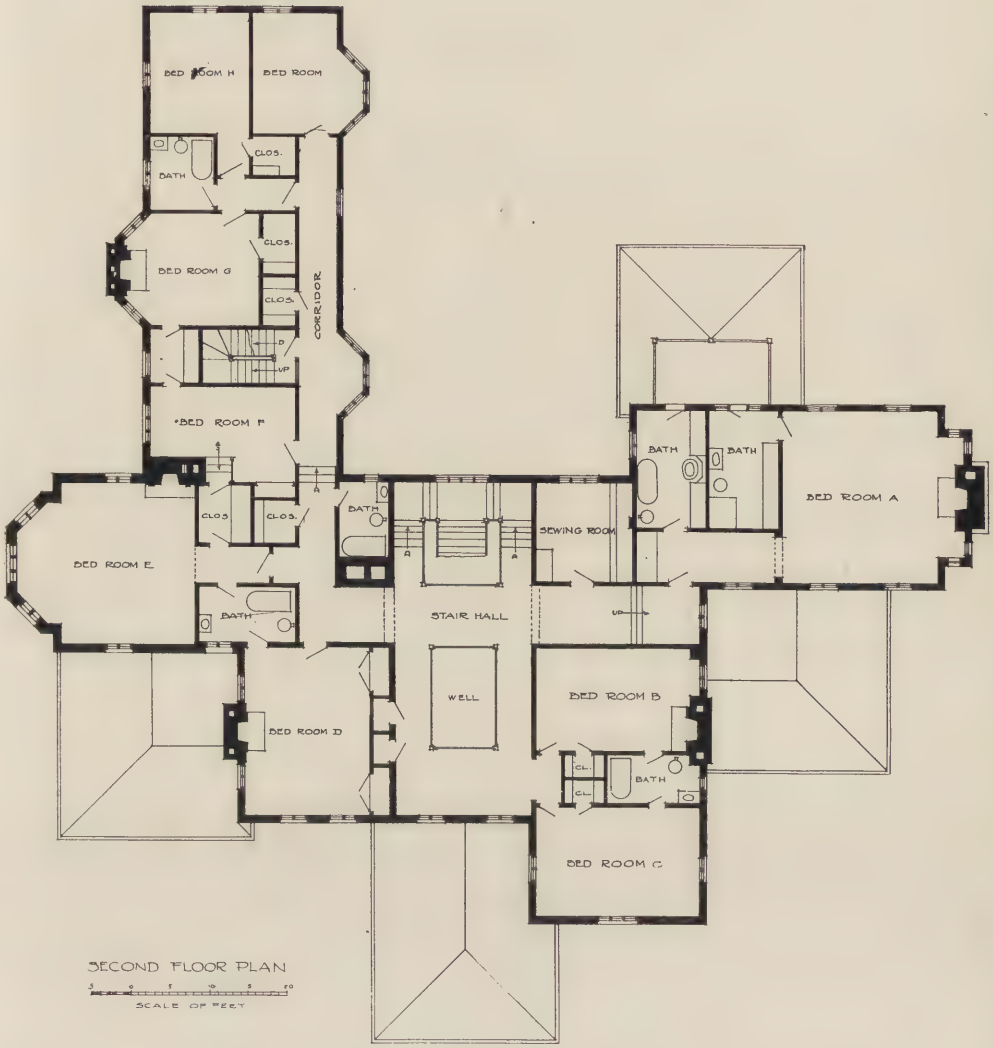


SINNISSIPPI FARM—HOUSE OF COL. FRANK O. LOWDEN.

Oregon, Ill. Pond & Pond, Architects.



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Oregon, Ill.



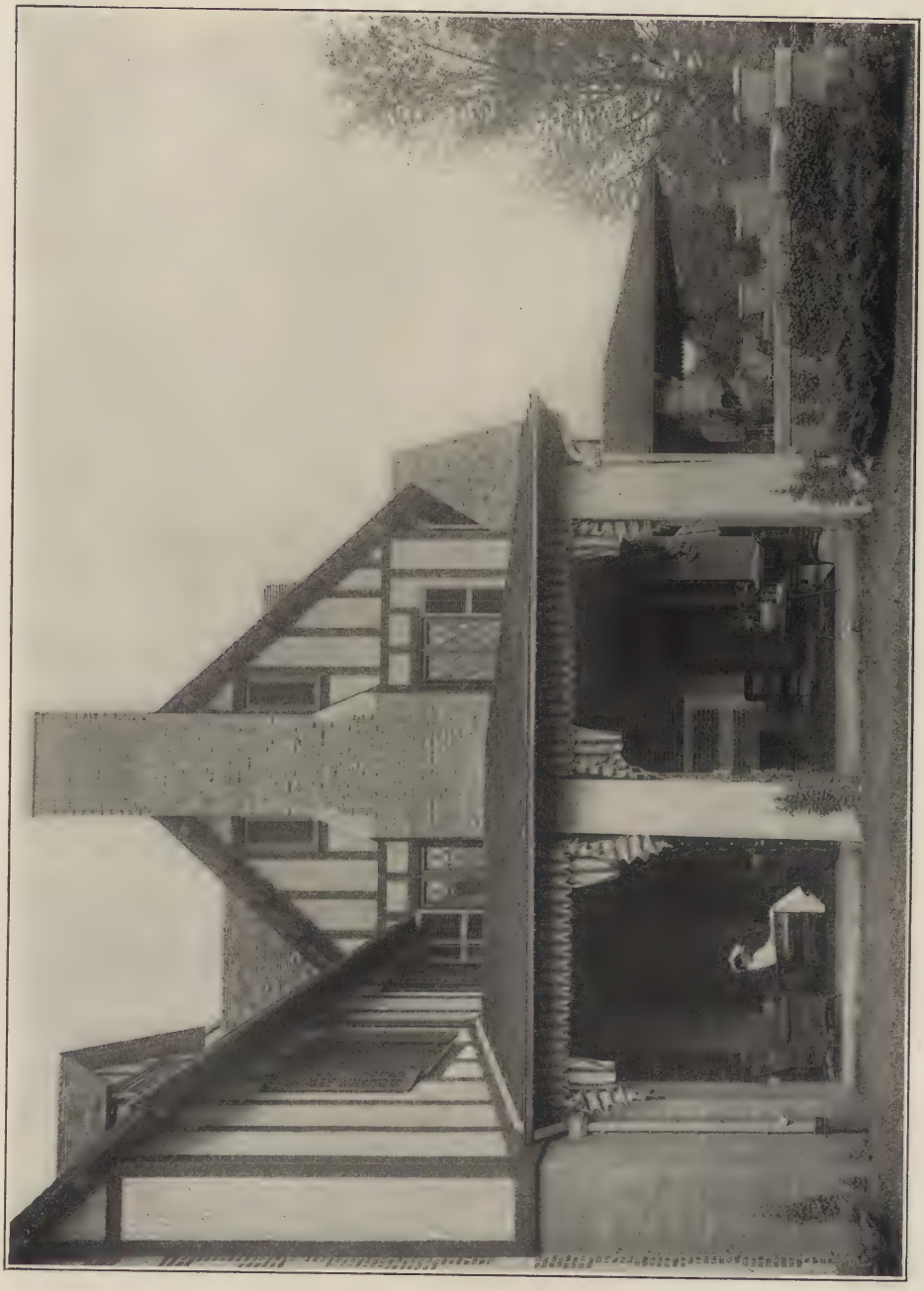
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Oregon, Ill. SINNISSIPPI FARM—HOUSE OF COL. FRANK O. LOWDEN. Pond & Pond, Architects.



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Oregon, Ill. Pond & Pond, Architects.

Country House and Garden*

"The modern country house is a child of our own times and its development is connected with the social transformation through which our living arrangements have passed in the last 50 years. One might almost say that the country house is a product of city culture. The influx into the city has been one of the most marked characteristics of the past century. The urban inhabitant has gradually outbalanced the rural, while his ways of thinking and living have become the most prevalent. With the city life, however, come the results of the unduly increased luxuries attendant on the close crowding together of rival elements and the increase of commercial interchange. The urbanite becomes supersensitive and nervous; he begins to grow weak in soul and body. Just here arises the need for the modern country house. People demand quiet, rural surroundings, country air. They wish to escape the noise, the too exacting demands of society. They wish to lead a more personal life. And there is still another desire: people wish to live within their own four walls. They are tired of moving from rented apartments, which although it furnishes the consciousness of not being bound, never leads to a sense of quiet and stability.

"All this drives the city inhabitant out into the country. He goes with an increased love for nature, with a hungering after it instilled by long privation. His position towards nature is a new and wholly different one from that of the man who has never been away from it. The urbanite returns to nature and enjoys her beauties consciously, whereas the farmer is influenced by them only unconsciously and they reveal themselves to him only negatively when he is seized with homesickness in a distant country.

"Within the last decade this flight from the city has been noticeable in all lands, its influence and intensity differing according to the economic development of the country. It appears to have begun in England and is there so well organized and so general that it might be said that it is the earnest desire of every city inhabitant to come into contact with nature in some way, either by living in the suburbs or by owning a place in the more distant country for summers and vacations. In Germany we are standing at the beginning of a general movement to abandon the city, which so far has expressed itself almost exclusively in the exchange of a city apartment for a house in the suburbs. Summer and vacation houses are still a great exception. But unless all appearances are deceptive this exodus to the country will very much increase in the near future. The objection to living in a flat is growing in the broadest strata of the city population. Around the large cities has sprung up a girdle of settlements where dwellings are built on the plan of country houses. Intense building activity prevails, and every year sees the foundation of new 'land companies,' who make it their business to lay out such settlements. We can say with truth, that there is no urbanite to-day who is not filled with a sense of longing at the thought of living in the country."

So begins Muthesius's book on "Country House and Garden." It is a good-sized volume; an essay of 40 pages on the influencing conditions, layout, and furnishing of a modern country house forms the text, which is illustrated by 240 illustrations of houses and gardens. Country houses of many nations are here illustrated. Some of them betray the individual spirit of the nation and its climatic conditions, while others show that these characteristics have not been sufficiently observed.

German country houses are represented in many examples. Austria proves that originality exists among its architects. Many of the German architects, however, are of Austrian origin, for the real home of modern German architecture is in Austria. But since the spirit of enterprise is so much more

*Landhaus und Garten, edited by Hermann Muthesius. Munich: F. Bruckmann, a. g. 1907.

active in Germany than in Austria many Austrian architects have taken up their residence in the former country in order to profit by the more numerous contracts. For example, Joseph M. Olbrich is an Austrian. He was the architect who established the well-known Darmstadt colony, which served as a model for the building of modern individual villas. The "Olbrich Villa" will doubtless still be remembered by all who visited the St. Louis exposition. It was built in one of the inner courts of the Palace of Industry which contained the German arts and crafts exhibit and was noticeable not only for the individual character of its rooms, but especially also for its artistic gardens. In Muthesius's book there are represented several houses by Olbrich. A very beautifully proportioned two-family house near Darmstadt which gives the effect of a single dwelling is reproduced herewith. Likewise two garden plans which, although laid out on a grand scale, resemble the formal garden of the St. Louis Exposition.

Holland is represented by many notable gardens. In the Dutch country house just as in Dutch art and in Dutch handicraft we find that the modern spirit has taken deep root and yet rests on the same style that prevailed there during the period of its highest artistic activity. This is perhaps to be explained by the fact that the great period of Dutch art, the 17th century, is still a model for today and was less a Renaissance than a beginning of the modern period. A good example of this epoch is Rembrandt. His masterly art of portrayal resting on a phenomenal grasp of individuality and soul expression, his light effects, which convey such a poetical impression and yet depend on careful observation, still influence modern painting. He was the



THE HOUSE OF FERDINAND BOBERG, ARCHITECT.
Stockholm, Sweden.
From "Landhaus und Garten," by H. Muthesius. Munich: F. Bruckmann, a. g.

first great democratic painter whose art stood far aloof from the service of princes. His powerful technique, which was never an end in itself, but always became simpler and broader the more he concentrated and individualized his art, is modern in the best sense of the word. The arts and crafts and the architecture of Holland of the so-called Renaissance, are closely connected with present-day art which has developed organically out of the past, whereas the German, cold, straight-lined, modern art is diametrically opposed to the intimate charm of the Old-German buildings and interior arrangements which corresponded to the geniality and sentiment of the German home. Indeed the products of the latter often seem more the speculations of keen German intellect than the artistic expressions of German feeling. This is especially true of the products of North-German architecture and of interior decoration. In South Germany and Austria the national spirit has been more faithfully preserved. Thus the Keetmann house in Elberfeld, designed by the architect Emanuel von Seidl of Munich—plainly shows its descent from the Gothic, although the influence of the modern, especially of the English country house style, is clearly visible.

Also the Villa Berberich in Heilbron displays a strong dependence on Old-German stylistic art, which is especially manifest in the very steep and pointed roof. The solid groundwork of rough stone together with the stone trimmings around the door and windows lend a mediaeval German air to the structure, but the habitability of the house according to modern ideas is also seen at a glance, so that it looks like a successful and original creation resting on national characteristics. The hall of the Rudolph house, designed by the architect Riemerschmid in Munich, shows in its interior decoration a happy union of old and modern German ideals, whereas in the interior of the Villa Berberich, and still more in the ladies' room, by Karl Bertsch, the glory of straight lines is



ONE-FAMILY HOUSES IN BOURNEVILLE, ENGLAND.

A. Harvey, Architect.

From "Landhaus und Garten," by H. Muthesius. Munich: F. Bruckmann, a. g.

shown, as expressed in modern German art to-day.

A peculiar mixture of motions is seen in the Villa Kralik; the house gives an impression of heaviness. The borrowing of different styles has been much more successful in the case of the Brunn architect Dusan Iurkowic-Sebrowitz with his country house. Here we find a wholly original combination. The architect has plainly taken the American blockhouse as his ground plan, but since he had to build an elegant villa of several stories he very cleverly ornamented the blockhouse with carved work and also enriched his structure with motives from the Old-German and from Swiss peasant houses. As all these styles originated in wood architecture, the result is a harmonious and artistic whole. This mixture is also found in the very rich interior decoration. Here of course the blockhouse architecture is not so evident as otherwise the rich ornamentation which was desired would have been impossible.

The Dutch country house, as mentioned before, shows a plain affinity with the past. The house at Laren is perhaps the most characteristic of all those represented. Naturally the influence of other countries is not lacking among the Dutch. Thus the houses in Blumendaal and Ardenhout, designed by the architects Cuypers and Jan Stuyt recall our American Colonial style which of course



TWO-FAMILY HOUSE IN DARMSTADT, GERMANY.
Prof. Josef M. Olbrich, Architect.
From "Landhaus und Garten," by H. Muthesius. Munich: F. Bruckmann, a. g.

was developed here by English and Dutch colonists. Van der Steen's country house, on the other hand, is closely related to the English house style, although in the interior finishing Van der Steen's approaches more closely to Dutch ideals.

The most striking characteristic of Swedish country seats from an American point of view is that they are built so compactly we should not call them country houses. They are plainly the homes of the owners of great estates, occupied the whole year round and have to be constructed to withstand a northern climate. Nevertheless, since they were intended for summer habitation as well, an American would miss the veranda. Very modest is the country seat in Friedenburg, designed by architect Nielsen of Copenhagen. The villa Kundsen, designed by Karl Brummer of Copenhagen, has an original effect on account of the skillful use of curves, but this house, which is plainly in the capital and has a citified look, as well as the very charming country house in Ellenhurst, by the same architect, has no verandas. The last-mentioned structure is a very happy copy of a Swedish peasant house. The same arrangement is found in the Huiträsk house, designed by the architects Gesellius, Lindgren and Saarinen, which has also borrowed its main form of construction from the peasant house and looks like a very comfortable and habitable dwelling. Here at least there is a corner with many bow-windows and a sort of a loggia affording the possibility of getting under a protecting roof the fresh air which seems so necessary to an American. A very peculiar construction is the architect Ferdinand Boberg's house, the lower part of which is of stone, the almost windowless upper part of wood. In the latter is a bow-window



COUNTRY HOUSE "HUITRASK," NEAR HELSINGFORS, SWEDEN.
Gesellius, Lindgren & Saarinen, Architects.
From "Landhaus und Garten," by H. Muthesius. Munich: F. Bruckmann, a. g.



COUNTRY SEAT IN FRIEDENBURG, DENMARK.

Maydahl Nielsen, Architect.

From "Landhaus und Garten," by H. Muthesius. Munich: F. Bruckmann, a. g.



DWELLING HOUSE, "VON KRALIK."
Leopold Bauer, Architect.
Winterberg, Austria.
From "Landhaus und Garten," by H. Muthesius. Munich: F. Bruckmann, a. g.

with terrace over it. One can hardly get an idea of the inside of the house from the front view. Except on the first floor where a whole row of windows suggest beautiful light living rooms, the other rooms, at least those in the front of the house, would seem to have little light. The house has a very substantial but not an aesthetic appearance.

There are illustrated in the book a considerable number of English houses, which is not to be wondered at, when we consider that the author has used the English country house more than any other as a model. The family houses in Bourneville, designed by A. Harvey and illustrated here, are among the best examples of English country house architecture. The steep roofs, the many verandas, the bottleglass windows—and inside the very practical and habitable arrangement of rooms make the English country house a pattern of building for non-opulent but well-proportioned, dignified homes, corresponding to a moderate income and constructed not for luxury but for comfortable family life. Many of the illustrations show a borrowing from the English farm house, others show plainly the influence on the American colonial style, as Redemont by the architect Emil Newton.

A large number of American houses have also found a place in the book. They show to a marked degree that people know how to enjoy the country better in the United States than is indicated by many of the foreign structures. In taste also they are not behind the English, which they frequently resemble. That their good qualities are recognized also in Europe is shown by the large number of pictures which have been reproduced in the Muthesius book.

America is also well represented among the gardens. Garden layouts of Wilson Eyre, Charles A. Platt, F. Paterson Smith and others are included in the book. Besides the Americans it is English and German architects whose garden designs have been given a place in the book. The most noteworthy among the German ones are those already mentioned by Prof. Josef M. Olbrich. Muthesius energetically defends the formal garden which corresponds to the style of the house and carries the same style into the landscape, whereas he criticizes the



GARDEN VIEW, SHOWING ARRANGEMENT OF TERRACE.

Prof. Paul Schulze, Architect.

From "Landhaus und Garten," by H. Muthesius. Munich: F. Bruckmann, a. g.

English garden which imitates nature on a small scale, except in the case of a large park. He has selected his illustrations in accordance with this view. Some of them express a high style of art, but a good many have a harsh effect, especially those cut up by too many white trellises and arbor paths.

In the text Muthesius does not take up the illustrations, but outlines his ideals



A FORMAL GARDEN.

Friedrich W. Begas, Architect.

From "Landhaus und Garten," by H. Muthesius. Munich: F. Bruckmann, a. g.

of country house and garden and especially criticizes German layouts; it cannot be claimed that he is prejudiced, for he shows his countrymen other models, even American ones. In regard to living in general in Germany he says: "People to-day in Germany are far from recognizing that in an object like a home there is an intellectual value; that a house has an organism, the existence of which lies in the intelligence and artistic feeling which its creator put into it. Precisely in this lack of understanding lies the cause for the shocking spread of a most atrocious style of villa architecture in our suburbs. People whose education and social position ought to exclude such a misunderstanding shrink from asking advice of an experienced artist because the contractor tells them that he will save them the expense of an architect. The rude conception that a house is only a conglomeration of mortar, stone, wood, and tiles has as a result that even our cultured people live in horribly planned and horribly tasteless houses." Further on he continues, in comparing German conditions with English, not very favorably to the former: "How little intelligence and artistic ability are to-day considered necessary for house building is shown even by great undertakings, like the villa building land associations. They, too, operate mostly with the cheapest draughtsman's ability, thus placing in the world villas by the dozen, the lack

of taste and appropriateness of which outdo even the contractor's concoctions. That this happens is at once the most decisive token of the artistic backwardness of Germany. The fault of omission which is here committed is shown not only in a cultural respect, but also has its economic aspect. This ought, however, to be at least understood by purely commercial societies if they were at all in touch with the artistic movements of our time. In England, as early as in the eighties, a clever person began to erect a colony of villas near London, Bedford Park in Turnham Green, for which he selected the very best architect in the country, the well known reformer in house building, Norman Shaw. The colony became celebrated and was visited as one of the sights by natives and strangers. That such celebrity is of economic value is of course self-evident. The example of summoning only the best architects of the country was followed later in similar English constructions, also in the charming workmen's colony, Port Sunlight—near Liverpool. The house and grounds which have thus grown up are cultural achievements, which have not only a lasting artistic but also a lasting economic value, whereas the constructions which some German real estate companies, especially those around Berlin, put into the world are tokens of barbarity, of which we may be certain that after ten years they will seem impossible and will be a butt of ridicule. For we may perhaps hope that by that time we shall have progressed considerably in our artistic development." And further on: "Here in exemplary manner has the English art of house building pointed out the way. Nothing is further from the English architect's thought than the studied modernity, so much in vogue on the continent. He even loses his temper when he sees exhibitions of it. No one is more



KITCHEN OF THE VILLA BECKER.

Munich, Germany. Paul Ludwig Troost, Architect.
From "Landhaus und Garten," by H. Muthesius. Munich: F. Bruckmann, a. g.

wedded to the old than he and yet his natural reason prevents him from imitating it. He strives to build neither "ancient" nor "modern," but limits himself to being technical, that is, in unconstrained fashion to reckon with modern demands. Thereby, however, his achievements are modern in the best sense of the word. They do not hang out their modernity as a signboard, but every observer is convinced that here is a modern organism in a technical and hence in a modern sense."

He very severely criticizes the German custom of living in the basement, a custom which was brought from the overpopulated city house to the country. He also criticizes very sharply, and with justice, the police regulation in Germany which compels everyone to keep the same kind of a little garden in front of his house and which causes a wearying monotony in the suburbs. The barren schematism of the suburban gardens with their wire fences, argues Muthesius, reduces all inhabitants to thoughtless empty pates as regards consciousness of observation. On the other hand he complains that in hygienic respects the regulations leave much to be desired. The building department permits every outrage in regard to the placing of sewers and the position of the toilet rooms, which are usually found next the dining rooms or pantries. As regards bathroom arrangements America appears exemplary to him. As a matter of fact even in American country houses there is much to be complained of, especially in small dwellings where bath and toilet rooms are united, a fact of which Muthesius is apparently ignorant.

He lays special emphasis on the fact that in Germany, in contradistinction to England, people build for the observer from the street rather than for their own comfort. He says: "This sham existence under which our modern culture suffers is unfortunately expressed only too clearly in the average German house. The English country houses are constructed very simply, at a distance from the street, without any attempt at architectural pretension or ostentation. Quiet wall and roof surfaces enclose the house, which is developed from within outward, and pretends to be nothing more than a house to live in. If these simple homes are compared with the pretentious houses of our villa suburbs, the difference between the thoughts and feelings of the German and English inmates will at once become apparent. The German villas stand lined up on the street vieing with each other in architectural motifs and affected grouping. They perform for the public on the street and the one aim appears to please the passerby. In this view the architect who wishes to show off his art concurs with the sentiment of many a German villa owner who is not satisfied with being able to build himself a house but wants to show that he can."

The reason for this Muthesius finds is that the country house is a recent innovation in Germany, whereas in England it has long formed a part of the national life. In Germany city habits have unconsciously been carried over into rural life. Hence the arrangement of rooms is not always hygienic, because here again the precedent has been established under unfavorable urban conditions. He finds fault especially with the sunless living and sleeping rooms, also the method of entertaining guests, which often determines the division of rooms. He energetically upholds the house terrace. In this respect America, where the house is frequently completely surrounded by verandas, may serve as a model.

As to the arrangement of gardens, he says much that is of value. But it is hard to agree with him that white painted, intricate, lattice work partitions are "wonderful," especially where they are so numerous as in many of the pictures, in which they actually divide the landscape into squares and have an unpleasant effect on account of the severe white.

The picture moulding appears to be still unknown in Germany and Muthesius goes to some length to point out its practical importance. The book contains much that is interesting, and even if we cannot always agree with the opinions of the writer we must at least credit him with expressing his views in an original way and impartially.

We cannot close without indicating the author's views, shown at the very beginning, on the moulding of home life through continual living in the country, but in objection to his idyllic picture it might be suggested that only improved transportation facilities can make it possible to live continuously in the country, or at least to do so without making sacrifices, for a going backward and a giving up of all the cultural factors that lie without the home is hardly to be thought of. The modern man can no longer confine himself to his four walls no matter how attractive the house may be. We stand in a rushing struggle for existence and a life of contemplation is possible only for short pauses of recreation.

Muthesius imagines that all customs can be retrograded. He writes: "It is true that living in the country necessitates a changing of city habits. It is not possible, or at least would be absurd, to cultivate "society" in the same way as is the fashion in the city. The regular evening dinners which the hotel proprietor provides in the apartment and which the host has served by hired servants in livery would be just as impossible as the regular evening attendance at concerts and theatres. Anyone who wished to continue these habits of the city would find country life not a recreation, but an affliction. Whether, however, a person suffers deprivation in his inner life by a giving up of these distractions, is at least doubtful. It is not those of the greatest depth of character who need stimulation in the degree enjoyed today in city circles. The person who is constantly stimulated only from without becomes crippled in his inner activity. An evening of home-made music often gives more genuine pleasure than attending the concert of a virtuoso; an evening of reading in the family circle can exercise a greater educational influence than the customary going to the theater. And a scientific occupation indulged in as a hobby increases the charm of life more than hearing lectures on the most divergent subjects. City life has become a living outside the home; country life must become a living in the home. The cultivation of family life will necessarily be promoted; in place of the consciousness of "being able to change every moment" will come the quiet enjoyment of one's own, the joy of living in one's own home, which alone insures the steady ripening of personality. The development of personal culture, of which so much is heard today, can hardly be expected in the hotel life of a city apartment. To personal culture belongs not only the worthy inner sensibility, which every man can achieve in any surroundings, but also the worthy outer form of our life. If we have attained a certain outward culture in our dress today, our present city dwelling is in much the greater contrast to it. Its interior conceals a depth of barbarity greater than has ever existed in the dwelling conditions of humanity. Everywhere is the cheapest sham, and the only aim is to impress those who are lacking in judgment with the pomp of ornament. The apartment dwelling is offered by the least cultured elements of society and taken by the most cultured. Were German taste not sunk to an inordinately low level, were not a feeling for the simplest demands of quiet respectability and dignified reserve completely buried, it would be just as impossible for a cultured person to live in these apartments as it would be for him to wear badly fitting clothes of shoddy material made up pretentiously. The modern German still fails absolutely to demand substantial worth and tasteful dignity in house and furnishing. And yet the room in which we live is just as much part of us as the coat we wear, and we are just as responsible for the sentiment expressed in our home as in our clothing.

Clara Ruge.

NOTES & COMMENTS

THE NEED OF A PERMANENT FEDERAL ART COMMISSION

There is no city more in need of an Art Commission than Washington, because there is none in which the responsibility for municipal art matters is so widely distributed. Though it is governed by three Commissioners, appointed by the President, its affairs are to a great extent controlled by Congress. All roadways, sidewalks, and parking are under the charge of the Engineer Commissioner, an officer in the regular army assigned by the President to this post, but all public reservations, including almost all the parks, are directly under the care of the President's chief-of-staff, who is also the chief executive of the Public Buildings and Grounds Office of the War Department, and may or may not be an engineer. When a bridge is to be built, if it continues a street or roadway, its design and construction fall to the Engineer of Bridges of the District of Columbia, and must be approved by the Engineer Commissioner, but if it is over navigable water—the Potomac River—it is given entirely into the charge of the U. S. Army Engineer Corps, and if it is on a public reservation, as is sometimes the case, it goes to the Public Buildings and Grounds Office. The Connecticut avenue bridge, for example, has been built under the supervision of the District of Columbia Engineer Corps, the Highway bridge by the U. S. Army Engineer Corps, and the approach to the latter, a culvert over a short stretch of marshland, by the Public Buildings and Grounds Office —each absolutely independently.

After the same manner the care of Rock Creek Park has been given by Congress directly to the District Government, but the laying out of the Riverside Park has been left to the Public Buildings and Grounds Office, and the Zoological Park is in the charge of the Smithsonian Institution. Thus, oddly enough also, the Federal Government dredges the channel of the river and dumps its dredgings on the Potomac flats, which the Public Buildings and Grounds Office is converting into a public park, while on the main land, immediately opposite, the city is making a survey and plans for the rebuilding of wharves and improvement of the water front.

Congress has given the District Commissioners authority to make and enforce building regulations, but declares that they shall not apply to any Government building, or to buildings occupied by officers of the United States, and reserves the right to annul or modify them at pleasure. From the Supervising Architect's office in the Treasury Department come the designs for the majority of the federal buildings costing less than $250,000, but the designs for those costing more than this amount may be obtained through competition or chosen by a committee appointed by Congress. The erection of statues and public memorials is all public reservations and is under the charge of the Public Buildings and Grounds Office, from which emanate programs of competitions, commissions and awards; but there is nothing to prevent any private citizen, or group of citizens, from erecting anywhere on a public thoroughfare, a statue, or memorial, of any description, provided permission be given by the District Commissioners. The National Gallery of Art is now the ward or the Smithsonian Institution, but every Government Department has a picture gallery of its own, it being customary for each ex-Secretary to be represented by a portrait, paid for by the Government, and painted by any one whom his successor may see fit to name. Is it any wonder, then, that the plan of Washington is not being developed homogeneously, that her statues are not the best, her portrait collections unimportant, and that her best citizens are urging the appointment by Congress of a National Advisory Board on Civic Art which shall serve both as a censor and a clearing house? The need is great, and at the present time particularly pressing. Great projects await execution and large opportunities stand at the city's door. The National Capital is to be made or marred in the next twenty years. Work which is badly done can, it is true, be done again, but as Mr. Saint-Gaudens one said, "Bronze and stone are so

imperishable, who will destroy the works which should never have been produced?" Washington has a plan for its artistic development, made by men of the most expert ability, which has not only met with universal approval, but given impetus and direction to city-building throughout the land. There is nothing, however, to enforce conformance with this plan and no definite assurance that in the development of the city it will be followed. Six great public buildings are now in course of construction and appropriations for as many more must be made within the next few years. A great park system is also being developed; land which should be secured for these purposes is being encroached upon, and in some instances the pictorial aspect is being destroyed. A survey is now in progress to determine the relative cost and advantages of filling in and tunneling Rock Creek or preserving it for park purposes as an open valley; new streets are being cut without regard to the future need of breathing spaces. By the building regulations skyscrapers are tabooed, 110 feet being the maximum height to which a building may be erected, but there are ways of evading the law, and more than once the District Commissioners have voluntarily countenanced its retrogression. A man of great wealth was, it is true, refused a permit recently to erect a large apartment house in the best residential section of the city, but there was no law to forbid it, and the refusal, though wise, was arbitrary—no restriction is placed upon ugliness or weight given to esthetic value. Not long ago the Secretary of one of the Government Departments commissioned a local photographer to have a portrait painted for his department, and the photographer took the commission to a local painter, offering to divide his profits with him provided he did the work satisfactorily and permitted the canvas to go unsigned; and about the same time another official of high rank employed a draftsman in Government service to make a series of photographic paintings to illustrate the work of his bureau at the Jamestown Exposition, and later form part of a permanent, governmental art collection. And yet when it is considered how little training in art and art criticism those in authority have had, or are expected to have, the real marvel is that so much is done so well. As many of the blunders can be laid to ignorance as to indifference. Engineer officers of the United States Army are not supposed to be landscape architects, nor is it required that a man be a connoisseur of art in order to qualify for the Cabinet. There is no great blame to be attached but a remedy sorely needed. Two at least have been suggested. Winter before last a bill was framed by the National Society of Fine Arts, and introduced into Congress by Mr. Wiley and Senator Newlands jointly, which provided for the organization of a national advisory board on civic art consisting of five members, appointed by the President; and more recently the creation of a Secretary of Fine Arts, who shall be a member of the Cabinet, has been proposed. Neither, possibly, may be realized, but there is a chance that they will lead to something better. The bill relating to the National Advisory Board was referred to the Library Committees of the House and Senate, and will be brought up and urged at the coming session. It gives little authority, but directs that the officers of the Government who initiate or have the execution of Government work request this board to pass upon the artistic merit of plans for public structures, and for the opening, modification, or embellishment of any public space within the District of Columbia proposed by legislative or executive act. Two meetings are to be held each year in Washington and an annual report rendered. Without doubt the bill is far from perfect, but it is conservative and good, and its passage would be a long stride in the right direction. Its aim is not to give the old Park Commission legal status, but to institute a Federal Art Commission capable of carrying on the work so well begun and to guard against both unnecessary expense and the perpetration of more "immortal blunders." L. M.

MR. BRYCE ON CIVIC AESTHETICS

If Mr. Bryce brings out another edition of his admirable work on the American commonwealth, there is some reason to think that he will consider it advisable to add a chapter—or at least a paragraph, if he can deal with the subject in such brief compass—to describe the general movement throughout the United States toward civic aesthetics. Hardly a city in the country has not felt its impetus, nor are many towns now without its spur. In lately addressing the Commercial Club of Chicago, which has been mainly responsible for authorizing the plans that are being made for that city, Ambassador Bryce said: "You have formed the conception of making Chicago worthy in its external aspects of its immense wealth and

its splendid industrial future. You have in your lake front an opportunity such as few cities have for providing superb pieces of city landscape. Your great inland sea may be faced by a magnificent promenade and you may rear colonnades like those of ancient Egypt, over lagoons like those of mediaeval Venice. You have already, through parts of the city, a chain of parks and boulevards which only needs to be further extended and developed to make Chicago without a parallel among modern cities. The beauty of architecture will doubtless come in time to reenforce those beauties which general street design can now create for you, and you will find that the effect on the minds of your people will stimulate the growth not only of an enjoyment of art, but probably of a creative faculty in art and in literature."

PLAN COMMISSION FOR BOSTON

Attention was recently called, in this department, to a bill enacted by the Connecticut legislature, creating a permanent Plan Commission, with sweeping powers, for the city of Hartford. The legislature of Massachusetts passed a bill in the early summer which provides for the appointment of a public improvement commission for the Boston metropolitan district. This also gave broad powers, and though the commissioners are to serve without pay the body is authorized to expend "twenty-five thousand dollars for clerical, expert, and other assistance, or for the proper carrying out of its work, as it deems necessary." The commission is required to make its final report to the governor of the state and the mayor of the city on or before December 1, 1908. The commission consists of five persons, three appointees of the governor and two of the mayor. It was required that they be "persons of recognized qualifications and large experience in connection with one or more of the following interests or professions, namely, finance, commerce, industry, transportation, real estate, architecture, engineering, civic administration and law." The commission is to "investigate and report as to the advisability of any public works in the metropolitan district which in its opinion will tend to the convenience of the people, the development of local business interests, the beautification of the district, and the improvement of residential conditions therein. It shall consider the establishment of a logical system of internal communications by highways, the control or direction of traffic and transportation, and the location of such docks and terminals as the interests of the district may demand. It shall recommend the method of executing and paying for such improvements and shall make such maps, plans and estimates of cost as may be useful for the thorough study of the same, or for the proper presentation of its conclusions." The appointees are: Architecture, Robert S. Peabody, Boston; engineering, Desmond Fitzgerald, Brookline; finance, Henry B. Day, Newton; transportation, Thomas J. Gargan, Boston; and law, Benjamin N. Johnson, Lynn.

THE WINDOW

A pleasantly suggestive little article, on the Romance of the Window, is contributed to a recent number of The Craftsman, by Esther Matson. Turning from thought of the window's association and dramatic possibilities, she comes to the discussion of its form and decorative value. It is astonishing, she says, that the drear sameness so often bitterly complained of in our city blocks is due "not merely to the row upon row of house after house, built on a dead level;" but also to the "inexpressiveness of the windows of them. All alike and bare of ornament, they exist at equal, never varying, distances from each other, like the buttonholes of a garment." She quotes Ruskin's plea for the bow window, sustained on a bracket, crowned above with a little peaked roof, and given "a massy piece of stone sculpture to the pointed arch in each of its casements." And she finds pleasant the small-paned window of olden times. One reason which she assigns to the common delight in "the moderate paned window of medium size, with definite casings around it," is the fact that "we not only want our windows to give us pictures of the outside world, but we want them to frame the pictures for us." She makes a plea, too, for the grouping of windows, not only for the gain in external picturesqueness and interest but for the advantage within doors of a concentration of light and economy of wall space. And yet "we English and Americans," she reminds us, "who get eight or nine months of sunless gloom every year, must imitate the Southern architecture of Greece and Rome, and worry along with the least possible number of windows and the greatest number of pillars, Doric, Ionic, or Corinthian, a variety of broken pediments, cornices and the like, because, forsooth, our

municipal buildings, our public libraries, our private dwellings, must be 'in character.'" But a "sunbeam measures farther than the glintiest of dollars. When we awake, our house-eyes will open too. Gradually we shall learn what a skilled decorator and painter is this master sun. One of these days we shall come to furnish our rooms with his golden shine."

BOSTON COPIES NEW YORK TENEMENT ACT

A new tenement house law was enacted for Boston by the last legislature. The conditions that led to its preparation and the fact of its enactment are rather more interesting than its provisions, for these follow pretty closely the New York law. That circumstances, however, is of interest, as putting a further stamp of approval on New York's tenement house act. Mayor Collins, of Boston, appointed some years ago an excellent commission to study the tenement house situation. The commission studied a year and a half, made a report and drafted a bill; but meanwhile Mr. Collins had died and the report was never presented. Then there was a state commission, which also studied the question and reported a bill for the whole state. This the legislature referred to succeeding legislatures. Finally in the summer of 1906, Mayor Fitzgerald appointed a commission to report a building law for Boston, and it was a part of this commission's report that a tenement house bill, prepared by the Massachusetts Civic League and endorsed by the Boston Society of Architects, was, with considerable difficulty, brought before the legislature and eventually passed. This bill was prepared after a deal of work by the League's committee on housing, the whole story making a good illustration of duplication of effort—the more so as the final bill is almost entirely a mingling of the New York law and of some recommendations of the Collins's commission. It is expected that there will be a fight next year to extend the law to all cities of the commonwealth; and to eliminate a departure from the New York law, which was accepted as a temporary concession to secure the bill's passage—viz., its application to those buildings only in which there are four or more tenements, or three above the first floor. The New York law applies to houses with three tenements, of which, as it happens, there are a larger proportion in Boston than in New York.

A LESSON FROM COSTA RICA

Campbell Macleod urges in a recent "Craftsman" that the house builders of our "unlovely villages in the south and south central states" take a lesson from Costa Rica's native architecture. He tells how lovely its houses are—built from the native bricks and roofed with the quaint Spanish tiles. He pictures a street in San José lined with the houses of the poor—here a "little adobe house, painted a heavenly blue, the roof hidden by a waving wealth of bright pink orchids; while its neighbor just across the street is yellow, painted many years ago and faded to a soft cream, throwing in bold relief the night-blooming cereus. . . . The houses are painted all colors of the rainbow, partially being shown for blue and pink and the various shades of yellow. And not one of them is too poor to boast a living, lovely, frame of flowers." Our villages of the south and south central states, he remarks, "have clay of the same quality, and unlimited sand for cement blocks; in fact as good, or better, material than the makers of the building material down there have at hand. . . . The paint for the Costa Rican houses is usually of home manufacture. It is also made from the native clay, refined and mixed with lime, colored by inexpensive dyes or more often by improvised paints—the blues being made from the bluing used by washerwomen the world over, and the reds and pinks from brick dust. Ochre gives the yellow tint." "When we consider," he concludes, "the cost of lumber to-day, and that getting lumber means losing our forests, and even then what flimsy houses, hot in summer and cold in winter, the poorer classes in small towns and in the country live in, the Costa Rican's comfortable house, defying both heat and co'd, the simplicity of the structure, and the ease with which the material may be acquired at our own back doors, as it were, should make its own appeal."

SOME CONSIDERATIONS ON MODERN CITY IMPROVEMENTS

The now forgotten centenary of the date—April 3, 1807—of the formation of the commission to lay out Manhattan Island in streets, and the recent, final report of the City Improvement Commission have drawn the public attention momentarily to one of the most notable of modern

municipal reforms—the Baron Haussmannizing of capitals. The attendant evils of this system, though generally ignored in public discussions, are most genuine. Not infrequently we are called upon to regret that this is so utilitarian an age. The benefits obtained by the transformation of a mediaeval, or even of an eighteenth-century, city into a twentieth-century one are obtained only at heavy cost. The burden on the taxpayers, the very great inconvenience and distress to the poorer population thus dispossessed of their homes without being able to find new ones equally convenient and moderate in rental, the destruction of old monuments and historic associations are items that should be considered. The beautifying, or the modernizing, of Paris by Louis Napoleon's Prefect of the Seine forced so many families of workmen to seek dwellings in the suburbs—in that city of most imperfect means of public transit—that it was seriously debated at the time whether the result would not prove to be a diminishing of the marriages and thus an increase in the double evils of immorality and of insufficient birth-rate under which the nation was already suffering. On our own Manhattan Island, the confiscation of entire city blocks for new terminals by the great railroads has driven thousands of families into tenement house districts already congested or to distant suburbs at the mercy of transit companies, "rapid" and otherwise. The dwellers in these districts, in their pardonable ignorance of that which constitutes their true welfare, are far from receiving with gratitude the proposals of the philanthropists to establish new small parks, "breathing places for the poor," among them, as spelling for them only higher rents and narrower quarters.

With regard to the destruction of the picturesque, the historic, the unexpectedly artistic, there have been abundant protestations. As far back as in 1866, Charles Yriarte wrote, apropos of the opening of the Rue de Rivoli: "The straight line has killed the artistic and the unforeseen." Eleven years later, it was proposed to demolish the tower and the fountain of the Abbey of Saint-Martin-des-Champs in order to construct some new buildings on the Rue Saint-Martin. There was an outburst of protest; "Demolish the tower?" screamed Victor Hugo, "no! demolish the architect? yes!" The latter proved to be a nephew of the poet himself, so he was spared, and so was the tower—but he took his revenge in restoring it from top to bottom. There is probably not one of these historic monuments, in modern cities, from the most valuable to the least, that has not at one time been threatened with removal in the cause of reform. On some occasions, it must be confessed, reasonable grounds existed for these changes—as when Richelieu widened the Rue de la Ferronnerie in the narrowness of which Henry IV. had just been assassinated. The beautiful tower of Saint-Jacques on the Rue de Rivoli, of which the church had been demolished soon after 1797, was saved by the municipal administration in 1836 at the reasonable price of 250,000 francs. We, unfortunately, have no chefs d'oeuvre of Gothic art, in its latest and most delicate period, to preserve—but we have saved the tomb of "an amiable child" when Riverside Drive was extended. These things are not exclusively matters of financial consideration; there are hundreds of pedestrians who have found this pathetic little headstone the most human, the most touching, the least forgetable of all the monuments on that splendid river highway.

Yriarte's "unforeseen" of the "artistic" is evidently not to be hoped for in the triumph of wide avenues, openings of vistas and axial lines. And the charm of the unexpected in the smaller monuments, fountains, carved façades, which the traveler finds in the Old World, in the narrow streets, at the sudden angles—the "color," the atmosphere, the quaintness, the sudden respite from the wearying "strenuous life"—how can we hope for these things in the "improved" city of the future? It may be said that we remember more willingly, more intimately, the charming little façade of the Casino in the Vineyard of Papa Giulio on the Via Flaminia, outside the Porto del Popolo, or Molière's fountain in the narrow Rue de Richelieu, or the angle and the fountain of the Grosse-Horloge in Rouen, than the Column of July, or the Columbus Monument in the "Circle." They are not of the highest art; they do not solve any of the great civic problems—excepting that of artistic endowment; it is perhaps useless to sigh for their preservation; but it is just as well to consider, once in a while, that there *are* other things. If the engineers of our day are not entirely of the opinion of the architect Dufourny, of 1793, that the monuments should be "simples comme la vtrtu," they at least believe with him that architecture "doit se régénérer par la géometrie." Sooner than be reduced to this starved regimen of lines and angles let us hearken

rather to such things as the story of the demons who, in the shape of innumerable crowns, haunted the great walnut tree which grew out of the tomb of Nero, until Pope Paschal II., directed by the Virgin in a dream, cut down and burned the tree and erected on its site a church dedicated to her, Sta. Maria del Popolo; or to Hawthorne: "The very ghosts of that massive and stately epoch have so much density that the people of to-day seem the thinner of the two, and stand more ghost-like by the arches and columns, letting the rich sculpture be discerned through their ill-compacted substance!"

Moreover, it does not require a very great intimacy with human nature and the artistic temperament to find that the genius for the great and monumental, to strike with admiration and awe and to be viewed from a distance, is much more sparingly distributed than the humbler, more comforting, more beautiful and more intimate talent. There was but one Michelangelo in architecture, sculpture and painting. A very neat thesis might be written under the caption: "How Man Could Dispense with the Sublime." Certainly no writing is needed to demonstrate that he can dispense with the quasi-sublime. It is probable, also, that the tendency of the age is away from both of them. The fine things that our fathers quoted *ore rotundo*, striking attitudes and casting up their eyes, now bore us. Is it that we are at once more sophisticated and more fatigued? As the architects and the sculptors will thus find it difficult to provide truly appropriate civic decorative monuments for their central plazas and ends of vistas, there are grounds for fear that the whole business of decorative municipal designing will suffer. That they will thus find it difficult, all experience goes to show. Many a sculptor whose heroic, monumental or symbolic figure is cold and uninspired will have in a corner of his studio, on a dusty shelf, a plaster sketch for a statuette, or a plaque, or a study head, full of charm, originality, sculptural character. When this artistic quality is "squared up" and enlarged from centimeters to yards, it is so thinned that it evaporates. Who would wish to live in a city such as some of the newer Parisian quarters on the other side of the Seine suggest—very wide and empty boulevards, houses correctly aligned and all cast in the same mould, no narrow streets, no accidents or surprises or monuments under the size of the Lion of Belfort, no "color," no atmosphere, no beauty, no intimacy, no associations, no legends— nothing but geometry and sanitation!

In support of such observations we can quote a distinguished historian, M. Henri Martin, on the results of M. Haussmann. "Was the work as sensible and useful as it was amazing? . . . all bounds were exceeded; . . . the work of a century was accomplished in ten years. This caused not only a tremendous expenditure of money, but also very unfortunate moral and social phenomena. . . . That system of straight lines was adopted which deprives towns of all individuality, and confounds them in the cold monotony of a single type very contrary to the principles of art. We may say, without much exaggeration, that the Greeks would have regarded it as the work of barbarians who had studied mathematics, but were ignorant of the conditions of the beautiful; public hygiene scarcely profited by the loss of picturesqueness, and was no more gratified than art, by these endless passages, where there is nothing to break the violence of the wind.

"Buildings utterly lacking in originality, imitated from every style, rose as if by magic along all these avenues, while old Paris vanished stone by stone, monument after monument. It seemed as if this potentate, without past or future, were mad to efface history. Countless charming and varied relics of old Paris, which might easily have been used in adorning the new city—cloisters, chapels, colleges, sculptured houses, turrets, and antique ramparts—fell beneath hammer and axe every hour; unnumbered precious vestiges of the Middle Ages and the Renaissance hidden within the houses, were brought to light by the hand of the destroyer, only to be crushed instantly; things were demolished which could never be replaced."

The French, who have been foremost in this work of regenerating their ancient cities, have been also among the first to point out its disadvantages, and the historian's testimony is supported by many of the more thoughtful of his compatriots. *Barbarie scientifique* is Jules Claretie's phrase; and while, in our newer country, the wealth of historic associations is so much smaller and the crying needs of commerce and of an already congested population in the cities so much greater, it is not according to good morals to have one side only of a great question so persistently and exclusively presented, as has been done in this case.

W. W.

CIVIC IMPROVEMENT BY AND FOR THE PEOPLE

It is a strange fact that the nature of Baron Haussmann's work for the benefit of Paris is so little understood outside of France, and especially in the United States, which is at the present time the most active centre in city making. It is not generally known, even by those well-informed people whose business it is to know, that Haussmann did really very little of importance that affected the topography of Paris. The large topographical considerations had been adjusted and the future definitely provided for by the master builders of the *Grand Monarque* generations before Haussmann's time. He was simply carrying out what had been wisely planned by others gifted with greater talent and foresight. The word Haussmannizing, which one sees used so often, is therefore a misnomer when applied to any city other than Paris for the reason that she is the only city that was definitely planned on broad and farseeing lines. There was no other city at that time (1850), nor is there any now, in exactly the condition of Paris when Napoleon III. and Haussmann set about it to complete the great work which had been so ably planned for them and which awaited only their determination and skill to carry to a successful completion.

Sacrifices there were, no doubt, in this vast work, but they were inevitable, and if it was found necessary to destroy buildings and monuments of great historic and artistic value, these were not sacrificed without keen regret and sincere appreciation. After the work of renovation was completed the city, to the casual observer, gives the impression of having been almost completely altered. Due to this misconception of Haussmann's work much has, of course, been written on the failure of other cities to similarly improve themselves. Efforts have been made to bring the lesson home to New York and other of our larger cities which have already outgrown their capacities. Much is said about American patriotism and love of country in a broad sense, but this sentiment stops to a great extent, the writers say, when the subject becomes one of substantial civic improvement. In the last decade many civic improvement bodies have come into existence, and no doubt have accomplished their share of good. But has their influence been able as yet to arouse in the average citizen the sort of interest and enthusiasm which in the breast of every Parisian really did so much to mould public opinion and make Paris what she is to-day? Results will come very slowly, especially in cities where development is more often for the benefit of real estate speculation than for the common good of the people, who, therefore, cannot be expected to take pride in furthering the cause. The tendency which considers private business interests of much greater importance than the efficient conscientious administration of municipal affairs bears its trade mark everywhere. Before we can expect real fruits from the labors of civic improvement bodies there must be established a higher respect for the public trust by the people, and a greater sense of responsibility on the part of the encumbents of this trust. Then we will have civic pride and civic improvement for all the pepole instead of for the chosen few.

THE PLAY-GROUND MOVEMENT

The national playground, convention, held in Chicago a couple of months ago, seems to have been significant of several things. As the first annual gathering of the Playground Association of America, it is not too much to say that it marked the beginning of a new era in the playground movement, a transition from a more or less sporadic and disconnected series of municipal efforts to a firmly established and well organized national movement. It has been well said that the annual convention—the next one is to be held in New York—means that playground enthusiasts will no longer be restricted in their acquaintance with men and methods to such cities as they can manage to visit. But to go back a bit further, the mere nationalizing of the movement is itself significant of the breadth and firmness of its hold. The August magazine number of Charities and The Common contains the papers of the convention and various illustrations. The great feature was the "play festival" in the recreative centers of Chicago's South Park System, the early success of which was described here long ago. The "field houses" in these centers are of especial interest.

WEBB ON SKY-SCRAPERS

Sir Ashton Webb, in giving some impressions of his American trip, is quoted as approving of skyscrapers as a necessity, but as a necessity only. He commends the building law of Boston which prohibits their erection; but for New York with its restricted area he sees no other course than submis-

sion to their domination. In fact, he expresses an opinion that New York "when completed" will be impressive in its architecture—as in the old story of the countryman who said New York would be a fine town when it was done. At present, it seems to the Englishman not more than half finished, and he points to the bare walls and universal lack of scale. There is to be, no doubt, as building continues, a raising of the average height of commercial and loft structures in New York; but most Americans, recognizing the practice of protecting skyscraper light by the purchase and retention of small buildings, do not look for much improvement in the scale. Big buildings and little are to dwell side by side. But at least the little will have the merit of letting rifts of sunlight and fragments of breeze into cañon-like streets that were otherwise gloomy and breathless. If the effect will not be harmonious, the fact simply emphasizes the critic's objection—that skyscrapers should be suffered only when a necessity.

WILL THE TOWER BE BUILT?

When announcement was made last spring that tentative plans had been drawn for the construction of a tower seven hundred feet high, to rise from the central court, or area, of Pittsburg's county court house, most persons said "whew!" to themselves and dismissed the subject. Because that court house is H. H. Richardson's masterpiece, it was thought that even Pittsburg would not stand for such a modification. But recent personal contact with Pittsburg architects reveals no such shocked attitude. One hears much of the excellence of the drawings, and of the surprise that so good an effect was secured; then one hears a little of the daring of the thought, how it appeals to the Pittsburg spirit, and of its financial advantages. Remembering then the origin of the plan, the great works with which this architectural firm has been commissioned in other places, and its hold on Pittsburg—where the Carnegie technical schools are only one of its many enterprises—one begins to wonder whether after all there is a chance that the thing will be done. Inquiry in Pittsburg failed to elicit emphatic opinions to the contrary. The claim is made that the tower will not spoil the original court house. But surely the layman at least, and the world is mostly laymen, confronted by a tower seven hundred feet high, would never think to look for the building at the base. It is not quite as bad to hide a work of art as to spoil it, but it is pretty bad.

INDIANAPOLIS MUNICIPAL ART ASSOCIATION

There has been recently effected the permanent organization of the Municipal Art Association of Indianapolis. An interesting feature is the composition of the board of directors. There are seventeen on the board, of whom eight are nominated by the membership, one by the mayor—his choice fell to the superintendent of parks—one by the board of trade, one by the local council of women, one by the governor, one by the school commissioners, one by the merchants' association, one by the commercial club, one by the manufacturers' association, and one by the county commissioners. This arrangement promises to give to the directorate a certain stability and authority that would doubtless have been lacking had the association's management remained wholly in private hands. The purposes of the association are thus described: "To conserve and enhance in every practical way the beauty and comfort of the city of Indianapolis and of its streets, boulevards, buildings, parks, bridges, streams and other public places and utilities, to stimulate interest in the scenic, artistic and architectural development of the city, and to encourage a greater civic pride in the care and improvement of public and private property." One would suppose that artistic organizations would have been given representation as much as the commercial, in a board of directors having such purposes as these; but perhaps the membership, in making its eight nominations, looks out for that, without running so great a risk of professional jealousies.

THE METROPOLITAN MUSEUM

The most cheerful piece of news, which has been given out in a long time is the nouncement that the new wing of the Metropolitan Museum of Art, of which Messrs. McKim, Mead & White are the architects, is to be devoted to a collection, systematically made, of all kinds and all periods of American Art. This extension of the scope of the museum's work fills a great gap in its current activity, and will serve a purpose which is indispensable to the whosesome appreciation of American Art.

A great art museum—a distinctively metropolitan museum—should be developed in

three directions. It should in the first place be a storehouse of the best collection of industrial art, which can be brought together, and sufficient arrangements should be made for the accurate cataloguing of this collection, its careful preservation and its judicious enlargement. In the second place, such a collection can be made a useful adjunct to schools of industrial art, and also within limits of the fine arts. Finally, a metropolitan museum of art should be made so far as possible a national museum. It should provide not only for popular aesthetic education, but for the authoritative recognition of American artists. At the present time American artists are not recognized as they should be either by public and private collectors. Their work, excellent though it be in quality, is neglected for the work of foreigners, largely because well-to-do Americans do not know how good it is; and this neglect and undervaluation, from which American painters in particular suffer, can best be repaired by the formation of a national collection situated in the city, in which so many American artists and millionaires live. Such a collection consisting as it should, of both of good examples of earlier American painting and sculpture and of the best examples of contemporary work, might be made a most efficient agent both for the encouragement of American art and for its improvement. The Metropolitan Museum will never justify its name or become a vital influence in contemporary American arts until it is made something of a national gallery as well as a museum of antiquities.

TABLETS OF RECORD ON BUILDINGS

With so much that is good in the last annual report of the Preservation Society, it is curious to find also a discordant note. In calling attention to the excellent and valuable commemorative work done by the London County Council—in three years it has erected some twenty-five tablets on historical houses—the report notes that the City of New York spends no money in this way. Yet, it continues, "many tablets of enduring bronze have been put up at the expense of the taxpayers" to "perpetuate the memory of the officials, architects, engineers and contractors who have been paid to design, erect and oversee the construction of public edifices." Instances are tauntingly cited. Argument of the subject may be dispensed with here, and no doubt there are many cases where the thing is overdone; but the criticism does not come with very good grace from the Historical Preservation Society. However vainglorious and sometimes foolish may be this marking of public buildings with bronze tablets, giving the names of the city fathers,



THE HOUSE OF MR. MARSHALL SLADE.

Mount Kisco, N. Y. Chas. A. Platt, Architect.

the architects and the builders, it is at least a preservation of history. A half dozen cases in which it is worth while will make up for a hundred in which it never may be.

CEMENT USED EXTENSIVELY FOR BUILDING AND OTHER PURPOSES IN INDIA

A great deal of cement is used in India in building operations.

Portland cement is considered the best and is used for all particular work. It is used in laying brick walls in foundations, and wherever wood is used for structural purposes it is laid in cement whenever possible. Floors, moldings, cornices and outside and inside trimmings are made of sand and cement. Wherever cement can be used to guard against vermin, especially white ants, it is freely used. Houses that have flat roofs are covered with brick dust and particles of brick mixed with cement and stamped down hard. Pitched roofs are covered with corrugated iron or tile and then solidly covered with cement and sand. These roofs last well and require little repair. Artificial stone is extensively manufactured and used in India for building purposes and for pavements and walks. Floors are laid in cement and made ornamental by imbedding broken glass and china in figures in the body of the cement. The outsides of temples are made in the same way and are very attractive.

Thus cement is in general use and always will be in India. The imports of cement as long ago as 1870 were valued at $50,342, advancing in the fiscal year 1900 to 729,478 hundredweight, valued at $500,332, and in 1906 to 1,778,428 hundredweight, valued at $1,070,275. The imports of cement for the first four months of the present calendar year were 574,006 hundredweight, valued at $333,427. The cement used in India comes mainly from the United States, the United Kingdom, Belgium, and Germany. Inferior cement is not wanted, but the best cement is in demand at good prices.

"IMPROVEMENT" IN A NUTSHELL

Among the more recent of the American Civic Association's pamphlets is a reprint from the Youth's Companion of an article entitled "Suggestions for Beautifying the Home, Village and Roadway." It was written and illustrated by Warren H. Manning, of Boston, and is one of the most telling and comprehensive, as it is one of the briefest, publications on the subject. On the first page there are gathered a few general directions and suggestions. Then follow twenty-three photographs which, with the short but instructive legends that accompany them, tell all the rest of the story—and tell it unmistakably.



SUBURBAN HOUSE.
From "Landhaus und Garten," by H. Muthesius. Munich: F. Bruckmann, a. g.

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The Ecole des Beaux Arts, Its Influence on Our Architecture

The article published below, contributed by Mr. J. Stewart Barney, is the first of a series of articles to be published in the Architectural Record from time to time which will deal with the methods of modern French architecture as applied to architectural practice in the United States. By "modern French methods" we refer particularly to the training obtained by American students (and their imitators) in the Ecole des Beaux Arts. Naturally, it is to be expected that there will be among our contributors a considerable, and possibly on some points, a profound, difference of opinion as to values. We shall publish these opinions, as properly we should, unexpurgated and unrevised. The point at issue certainly is well worth a debate. The best interests of American architecture are involved.

Mr. Barney's paper raises the entire question in a very admirable manner. He is, as is well known, an architect of experience, whose achievements in this country give to all his judgments a presumptive value. His opinions are those of a mature, professional man, and therefore differ essentially from the impressions or recollections of a young student

Editors of THE ARCHITECTURAL RECORD.

It is well known in the architectural world that the strongest influence now operating in the United States is that of the modern French school. The force and consequence of this fact is not appreciated or even understood by the layman, as he casually observes the new buildings that are going up all around him. He notes, perhaps, if he is a European traveler, that they suggest something foreign. If he is untraveled, he may recognize that there is something novel in the architecture of our more recent buildings, something that may even seem to him to be distinctly fashionable; but what this element is, he does not stop to consider. He is not in a position to recognize that the "new thing" in American architecture is the influence of the "Ecole des Beaux Arts."

The importation of commodities is visible. The importation of an idea or influence is quite the reverse. Yet the one may be as important as the other. The "change of front" (it is hardly deeper) of American architecture during the past decade is both significant and systematic, and really deserves the consideration and attention of the American public, in so far as that public is really interested in the profounder elements of American civilization.

Were we to-morrow to import from France their engineering and mechanical principles as applied to their railroads, the vocabulary and methods of the management of the same, or the cumbersome machinery of their banking system, how startled we should all be by the event, how quickly would arise inquiries from specialists, public, and press. But this thing has actually happened in the domain of architecture. Nobody is surprised, hardly a single word of inquiry is heard, hardly even does anyone care to discuss the significance or the value of this extraordinary importation. Is this as it should be, and were we to throw off this influence, would we, in our untutored and susceptible condition, indulge in other archi-

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tectural excesses which would be even worse? Should we not, before we have allowed this transplanted art to take so firm a hold of our people as to nip in the bud or postpone indefinitely any tendency to develop a national architecture, stop and consider?

Why have we adopted the teachings of the *modern* French school? Why have we ceased to consider the magnificent French architecture of the period immediately preceding the Renaissance? Why do we not study with more consideration the architecture of other countries, notably England and Germany? And why do we allow our naturally strong artistic instincts to be developed along one line only? Has it been demonstrated to our entire satisfaction that the Ecole des Beaux Arts, with its theories, its ateliers, and its Grand Prix, is the *only* school in which to train our young men? Is the influence of the modern French school the best for the future architect of America?

A few years ago the United States could not boast of a graduate of the "Ecole des Beaux Arts." We now have many full-fledged graduates. Each year this number is increased. We have in many of our colleges Frenchmen, graduates of the Ecole, in charge of the architectural department. Almost every office of any size in this country *boasts* of one or more of these graduates. Yearly hundreds of our young men go to Paris to study architecture, if not in the school, under the direction of one of its graduates. We have in this country an Architectural Society, composed of this privileged class, which takes for its name the French words "Beaux Arts."

I want it to be distinctly understood that neither by word nor by inference do I wish to be understood as saying a word otherwise than in praise of the French system of training *when applied to Frenchmen themselves* and to the conditions that are prevalent to-day in France. I cannot say enough in admiration of their wonderful corps of professionals, their absolute sincerity and disinterested work in the propagation of the correct theories of art, literature and science. They have established a standard of excellence which I doubt that we shall ever equal. That France has been for the past three hundred years the center of art-influence of the world is not questioned. That the world at large, and especially America, owes her a debt of gratitude for the generosity she has always shown in throwing open her schools, her museums, and her libraries to all, is admitted. It is a matter of history that the nucleus from which sprang this modern art-energy was an importation from Italy, and although all do not agree that this Italian art, which was so skilfully transplanted by France, was the best for the countries which accepted it at her hands, the world is unanimous in its thanks, and her brilliant, methodical and conscientious labor has been, and is still, highly appreciated. She has stemmed storms which have staggered the entire world and shaken the fabric of civilization to its very foundation. France has been and is still the teacher of the world, the pioneer in thought and the home of the student, and it would be wrong to throw off lightly and before due consideration her guidance.

The architecture of America at this time is in very much the same position as was that of France at the beginning of the Renaissance, with the exception that we have not back of us the glorious traditions of the Gothic art. We are planting this exotic art in virgin soil, whereas France, when she borrowed the Italian art, had a strong substratum in her wonderful architecture of the 14th and 15th centuries.

The object of this paper is not to criticise the French architecture of the Renaissance, though I frankly admit that I have never quite understood how the French, so careful to waste nothing, could in one generation, so to speak, without apparent regret, have thrown away the brilliant traditions of their Gothic art. I have often wondered what would have been the architecture of France to-day if the French had been allowed to follow their own strong artistic instincts, and had not been forced by the whims of the fashionable favored class to borrow from Italy its art and its artisans. What would the spirit of Gean de Beauce (designer of the north tower of Chartres) have produced could it have freed

itself from the fetters (rules of art) which were then based on misguided study of classic monuments, and were as meaningless when applied to his time as they were pedantic in their claims to solve all questions of design and proportion in architecture.

The purpose of this paper is to suggest that, perhaps, the theories and teachings of the "Ecole des Beaux Arts" do not apply to our modern requirements. I do not for one moment question that they are necessary for the French art student in preparation for his one aim and object in life, namely, the "Grand Prix de Rome." No one denies that he, by the winning of this great distinction, has proven that he is a thorough master of all the *scholastic* theories, and is prepared to teach others, whose only object in life is in their turn to repeat this performance. With the American student the position is entirely different. His "Ecole" reputation does him no good (in America) with those who understand what it is based upon and how it was made. There have been so many young Americans who have had the reputation of winning the Grand Prix de Rome, a prize which is open only to Frenchmen, that we have become skeptical, demanding American achievements rather than an "Ecole reputation." It is to be regretted that we have not in this country the atmosphere of the universal appreciation of art which gives to the American student in Paris new interest and encouragement, but before he can derive real benefits from his surroundings he must be able to distinguish clearly and distinctly between true thought and raving, reason and nonsense, conviction and pose. He must be able to disabuse his mind of the idea that in his work in Paris he is preparing himself for his work in America. He should realize from the start that he is there to study the French method of thought, which applies only to French conditions, otherwise he will have difficulty in throwing off the French influence, which it is absolutely necessary for him to do before he can begin serious work here. Unless he possesses great strength of character or previous training, surrounded by the atmosphere that produces the future "logist," he is unable to distinguish between the good and the bad as applied to the "Grand Prix," which may or may not be good as applied to the problems of actual practice. It is admitted by the strongest advocates of the French teaching that there are dreamers in the "Quartier Latin," and that their wild dreams are sometimes so cleverly put that they have great influence on the weak. It is the weak that should be protected; the strong need no protection. And the man who goes to Paris simply to gain a smattering of French, his "Parisian stamp," the regular stock of atelier slang, to return to this country using terms which are meaningless when used even by a Frenchman, but are for him the most unpardonable affectation, is too much of a harlequin to enter into this discussion. It is admitted that discredit has been thrown upon the Ecole des Beaux Arts by such men, who through ignorance did not catch the spirit of its wonderful training.

The following, it should be understood, is the result of careful notes taken during two years' study in Paris in and out of the ateliers, under the direction of those who were considered their strongest men, and for whose opinion I have the greatest respect, and to whom I am indebted for many of the points which I make in criticism of the methods of the school as applied to the American student. These I will not offend, as they have often agreed with me, and have always willingly given consideration to the points which I raise.

When for the first time, under the direction of one of these men, I undertook to work out one of their large problems, I was appalled by its magnitude, considering the small amount of time that was allowed me to solve the same. Although I had practiced architecture in America for nearly fourteen years, this problem required information that I, with my experience, did not have. I was confident that it would require all the time allowed for the complete solution to read up on the subject and put myself in a position where I could consider intelligently the conditions governing the same. Therefore, with a very limited knowledge of the subject, and not hav-

ing, at that time, entirely grasped their idea of proportion in plan, one of the most striking features of the school training, I naturally produced a plan absolutely without merit from any standpoint, and especially from theirs. I was wandering in the dark. I could not understand how it was possible to grasp so quickly the solution of so large a problem in an entirely new field, and requiring special technical information. I was very much impressed when for the first time I saw the readiness with which the advocates of this proportion system arrived at a solution.

I think I am right in saying that the student of the "Ecole des Beaux Arts" is taught to plan with his eyes. He uses a very soft pencil, or, preferably, a piece of charcoal. With this on a small piece of paper he spins, and spins and spins in concentric circles until he has covered the entire paper with a soft gray tone of interlacing lines. These he smears occasionally with his fingers, and in this shadowy uncertainty his quick and trained imagination sees or devises a form which his experience has shown will be considered good. He then forces the conditions which govern the problem to fit this beautiful form. By the process of proportioning the different parts of his plan he claims to arrive at a solution, and by means of his power of indication he renders the whole pleasing to the eye. The first is false, the second deceiving.

By their theories and their methods of indication they not only arrive quickly at the solution, but are equally skilful in seeing at a glance the faults in a plan-composition of others. One often hears of the wonderful skill of certain professors in this particular feat of telling at a glance, without even reading the programme or demanding the scale, what is the trouble with a plan. Considering and judging an architectural plan as a musician would a piece of music, their trained eye readily detects harmony, lack of harmony or discord. They detect a false note quickly, and can as quickly give their reasons for the discord, but their reasons are generally the statement that this particular form, or combination of forms, had or had not been used in previous "concours," or having been used, had been adjudged good or bad. They refer to the previous "Grand Prix" as a lawyer, pleading before the bar, would refer to the rulings of the highest court.

This great facility in criticism, I think, is due to the fact that they have studied for years the expositions in the Ecole; they know by heart every decision of the "court," they know what has been considered bad and what has been considered good, they know what is now considered good or bad, they know what has been pronounced obsolete, what is now the most fashionable form, and, like a clever tailor, they are quick to see the possibilities in a new cut. They are quick to tell whether a new form will take its place in the traditions of this paper-architecture and be handed down as something which has been tried and found good. They are perfectly sincere when they say that they feel discord, but my question is always, Why do they feel this? Would they feel the same in walking through the building constructed after the plan under consideration, and as there is no possible way that they can obtain, after the building is constructed, a view of a horizontal section through the same, which is the plan? I think they may be accused of wrongly applying the rules of artistic combinations of forms, lights and shades. Their theories are therefore just as applicable to the working drawings for an automobile.

As I have said, they will criticise a plan without even thinking of asking the scale at which it is drawn. They do not hesitate to criticise before asking for the conditions which govern. This was well illustrated when they criticised a set of competition drawings which I made in Paris for a New York church, without asking for the prospectus of competition.

When asked why they do not consider the scale at which the drawing is made, they reply: "The scale makes no difference; it is a matter of proportion." Could they apply this theory to the plan for a State hospital, for example? The space allotted to one patient might, at one scale, be that which was required

by law, and at another give to the patient more cubic space than was required—more than was convenient for the administration of the building, and more than the appropriation, which was based upon scientific calculation, could pay for.

Naturally, men who have been passing on plans, with theoretical requirements based upon theoretical conditions which have been the outgrowth of their experience with "projects" which were never intended to be executed, are apt to form standards of excellence which are erroneous. From their standpoint, judging from the masterpieces which they have turned out, according to their theories, their methods are correct; but when these methods are applied to American competitions for a building that is really to be built, great injustice may be done to those who are not educated in these theories, or understanding them, consider them worthless and refuse to be influenced by them.

By the French teaching, the plan is an assemblage of symbolic indications, and when rendered in accordance with their rules of shades, tones, values, etc., is as perfectly understood by their judges as would be a musical score to the leader of an orchestra, and establishes between them and the student a perfect medium of communication. The student, if he is a master of the art, can at will suggest to the judges gayness, sadness, light and air, or absence of both — a beautiful view or a dense forest. All of these different forms of indication (chi chi) have been invented by these clever schoolboys with the sole idea of pleasing and catching the eye of the judges, having noted in previous expositions that the drawings having the most extraordinary display of this kind of art were generally recognized.

This meaningless, aimless, childish performance has been carried on to an absurd limit, and as long as this is confined to the school it is a matter of no interest to us; but when full-grown men, serious in their work, allow themselves to be forced either to study these tricks, or, if they have not the time themselves, employ in their offices, at exorbitant salaries, pastmasters in this form of "plan garnishing," in order to compete on equal terms with those who have forced this sort of rendering on us in the guise of high art, I think it is time to stop and consider.

As I have said, I was very much impressed when I first saw one of these masters of what I, for the lack of a better name, call the "spinning process," dash off in this way the plan for a large problem. It was a joy to look at. His skill was almost magical, his arguments most convincing. I was certain that he at some time in the past had given a great deal of time and study to this particular problem, but now I know that he did not know as much about the conditions governing it as I did. When it was laid before him it was the first time that a problem of that particular nature had been submitted to him, but with absolute certainty, the outcome of his confidence in his theories, one of which is, I think, that good proportion in plan produces a good plan, he quickly arrived at a solution which satisfied his eye, would have satisfied the eye of the Committee of Award, and was therefore pronounced by him the proper "partie" (lay-out). When the uncompromising facts governing this problem were brought to bear upon his "parti" his beautiful proportions were lost, and the plan was pronounced bad, not because it did not fulfil the necessary requirements, but had lost its proportions and was no longer, as he expressed it, satisfactory to an "indescribable feeling." To understand this "indescribable feeling" one must train oneself by studying the proportions and combinations that have in previous school "concours" been adjudged good by the committee of award.

Having now studied conscientiously this process, although not an advocate of the same, I can in a few minutes dash off a "parti" for the largest or the smallest problem. I use the same process of "spinning" until something appears on the paper which suggests a pleasing combination of forms. This I can apply, as they do, to the tooling on a book, the lay-out of a park, the plan of an old ladies' home, or to some really great work.

It must be because of their absolute confidence in the efficiency of proportions, as applied to plan, that the men educated in these theories undertake, without hesitation, the most complicated problems with conditions of which they have not the slightest information. They certainly solve the problem to their entire satisfaction by this skilful combination of large and small forms, arranged with the idea of producing the most pleasing plan-picture. And by combinations of grays, tones, washes and values—all having no more bearing upon the practical result than the artificial effects of lights and shades which they produce on their façades with shadows at 45 degrees—they undoubtedly satisfy the *requirements of the school.* It must be said, however, that though they may be accused of misleading others into the belief that they have solved the problem practically, they have first misled themselves. It is almost impossible to argue separately the theory of proportion in plan and the process of indication or rendering, as they are inseparably associated; the rendering being the method by which proportions, which are considered good, are emphasized, and those which might be criticised rendered interesting or, if necessary, entirely hidden.

When I was at work on a plan for a block house, an army post or trading station in Alaska, concerning the requirements of which neither the professor who drew up the conditions (judging from the conditions), the professor under whom I was then working, nor I myself pretended to have the slightest information, I was told that I could by the theory of proportion decide the best method of fighting Indians, and that the necessary size of the block house was a simple matter of proportion between it and the surrounding courts, I was then tempted to pronounce their theories unworthy of serious consideration. In answer to my objections, I was told that they were not in reality attempting to design a block house or trading station that would suit the place for which it was intended, and perhaps theirs would not be a practical solution. Then why attempt to solve a problem that required no solution? Why impose any conditions, and why call the solution an army post in Alaska? I could not understand how it was possible to consider intelligently this trading station or block house without first having a talk with the Indian fighter. I could not see how any theories referring to the monuments of Europe could apply to this absolutely new set of conditions. I claim that if it was necessary to have theories at all in order to come to a satisfactory solution, these should be established on what the trapper would say, rather than upon what Louis XIV. had already done or would do if he were called upon to build this army post. Seeing in this particular problem a golden opportunity of testing their theories of proportion, I wilfully made a block house too small for the purposes for which it was to be used. I placed it in a position so dangerous, from a strategic standpoint, that I think the trapper would have refused to live in it. I entirely disregarded the safety of the inmates of the post, but having grasped the theory of proportion I studied with great care to obtain what I thought would be considered a fine combination of forms, composing with great care the different values, lights, darks and grays. These combinations, and the method of rendering them attractive to the eye, I learned by painstaking study of the "Grand Prix" of previous years. The consequence was, I was highly commended. I was told that it was pleasing to see that I had grasped the idea, and that it had always been predicted that I would "arrive." I then demonstrated that it was impossible with this "partie" to obtain the required amount of space for the different parts, having carefully worked out beforehand the amount of space which, in my judgment, they would require. It was therefore necessary for the professor to devise another combination of forms. This he readily did, and without an apparent effort obtained another more pleasing combination; but when the facts were brought to bear upon this new "partie," it was also found that it did not fulfil the requirements, and we parted without having solved the problem of how to fight

Indians in Alaska. We knew nothing whatever about the requirements, and without the assistance of the trapper it was just as ridiculous for us to make a combination of forms to suit his conditions as it would have been for us to have selected for our "partie" for this army post a Turkish rug, simply because it, by its combinations of forms, shades and colors, produced a pleasing effect upon the eye.

The advocate of this system, when he has, as they say in French, "arrived," claims to be able to design by the theory of proportion the correct solution of any problem, a block house in Alaska, the palace of a king, the house of an American millionaire, or an undertaker's shop twenty or thirty stories high to be built in New York, to fulfil the Frenchman's idea of our requirement (Prix de Reconnaissance des Architectes Americains—school year 1905-1906), without any other preparation than a good eye for proportion, and a wonderful skill in indication.

I was given to design a gymnasium, or rather the Frenchman's idea of a building for the Young Men's Christian Association in America. I carefully calculated the sizes of the different rooms —dining-room, library, assembly-room, gymnasium, etc.—which would fulfil the requirements, assuming a certain number of habitués. I laid aside my plans, and when the professor arrived I requested him, in order that I could more thoroughly grasp his method, to read the conditions and make himself what he considered the proper "partie."

He was most methodical. He read the programme carefully, and divided it under different heads, giving to certain features greater prominence and to others their respective places. So far, so good. But then, seizing a large piece of charcoal, with much "spinning," half closing of the eyes, and throwing his head from side to side, he arrived at, as is always admitted, a beautiful form. His particular idea was that a large dining-room, called for in the conditions, should be symmetrical with and balance the gymnasium. I asked him how he could possibly arrive at any such proportion when, really, it only required a certain number of square feet for one man to dine comfortably, with all of the necessary service, etc., while for the same man to perform on the horizontal bar or the running-track, to play handball or indulge in any of the gymnastic exercises would require from five to twenty times as much space. There was, therefore, in reality, not the slightest proportional relation between the size of the two parts. After that he was willing to consider these practical tests that were brought to bear upon his theories.

The following are a few of the rules which are given to assist you in understanding the theory of proportion in plan. These were all carefully noted by me immediately after each criticism.

In making the plan of a large hotel in the country, the amount of land available unlimited, there must be a harmonious proportion between the size of the drawing-room and the flower beds. Exactly what this proportion is it is hard to establish. One explanation of this theory is that, given the number of people who would naturally gather in the drawing-room of the hotel, if the same number were to wander into the garden, if there was not a proper proportion between the two parts of the composition, and the garden, for instance, was too large, the guests would find it but sparsely populated, and it would produce on them the effect of sadness. When you failed to grasp this idea you are told that these proportions are in fact matters of sentiment and feeling, that it is almost impossible to express them in words.

In another problem, "Rendezvous de Chasse," feeling that perhaps I had grasped the idea of proportion, as referred to the flower beds and the drawing-room, I endeavored to bring about some sort of proportion between the rooms of this hunt club and the court of honor in front. You can imagine my disappointment when I was informed that in this particular case there was no proportional relation between the rooms and the court of honor, because the court of honor in a "Rendezvous de Chasse" should be made always as large as possible. I could not ascertain ex-

actly how large that meant. This building was situated in the middle of a forest, and the amount of ground available unlimited. It is hard to understand why, if the court of honor was unlimited in size, the membership of the club being naturally limited, the same feeling complained of by the guests of the hotel might not be felt by a handful of hunters arriving in the court of honor.

Then a new and very impressive idea was suggested, one which I failed absolutely to understand, although I could find few Americans studying in Paris who did not claim that it was quite simple, and pitied me for my stupidity. This was that the "Rendezvous de Chasse," being situated in the middle of a forest, should be designed from the inside outward, and not from the outside inward, which would have been the case had this building been placed on the top of a hill. (This suggests some of their theories of sentiment.) A building, of whatever nature, if situated in the middle of a forest, should be symmetrical, provided the forest was not cut away on one side, in which case it would call for an unsymmetrical treatment. This symmetrical treatment was also true for a building situated on an island, that is, if the island was far removed from the mainland. But if this island was near the mainland, the design should on the land side express the nearness of the mainland, and the general movement of the building on that side should follow the water line, not of the island, but of the mainland. The mainland being the strongest influence, would have a tendency to overcome any desire on the part of the designer to follow the water line of the island.

And other theories which I do not give, for fear that I might be accused of exaggeration were I to quote them. We have no objection to any of their theories, as long as they are harmless, or they keep them within the limits of the school; but when they encourage false indication, we should object to this particular school product being imported into our country.

One of the drawings for a popular theatre was admired by all. This particular student had caught the exact idea that the professor wished to bring out and teach by this problem, namely, great facility of exit, and he had so beautifully rendered the idea of openness by the use of arrows, "mosaic explosions," graded tones, etc., that it gave one the impression that the audience, on arriving at the great vestibule on the level of the sidewalk, would be literally blown into the street. It was found, upon close examination of this drawing, that the impression of free exit was the result of false indication, and if the plan had been drawn correctly the appearance of openness, so highly commended, would have been entirely lost, and as it stood the doors which were supposed to give this great freedom of escape had a maximum height of about 4 feet 6 inches.

It is not suggested for one moment that after leaving the school any one of the advocates of this system of indication would in competition wilfully mislead; but it has, on several occasions, been noted that plans so decorated were given the first place in a competition, and it is at this point that we first begin to feel the disastrous influence of the school training as applied to the practice of architecture in America. The judges in these competitions were either not able to look beyond the drawings, or being educated in the French school, judged these competition drawings in the same way as the judges in the Ecole des Beaux Arts judge the drawings for the Grand Prix. The fact remains, the buildings, when executed, had not the attractive points which were so cleverly promised. That is perhaps the reason why one is so often disappointed in walking through a building executed after one of these designs which was so unanimously admired and talked about, when it existed only as a magnificent set of competition drawings.

It would be amusing, if it were not so sad, to walk through one of these buildings, carrying in your hand the competion drawings. You could only tell by referring to the sunburst on the plan when you had arrived at the great point of interest, and should enjoy the magnificent vistas, which were so beautifully suggested. It would be impossible

for you, unless you confine your attention entirely to the plans, to enter into the gayety, life and vivacity of the ballroom, nor would you be overcome with sadness in contemplating the stern realities of the family chapel.

Alas! You might find the ballroom lighted by windows looking out into a light shaft 6 feet by 10 feet, which upon the original drawings had been represented as the sunken gardens of Versailles in miniature; the family chapel, occupying a place between the coal chute and the water pump, receiving its dim and religious light, so impressively indicated, through the glass floor of the servants' bathroom; and the library, which had conveyed to you the idea that you could sit in front of a large fireplace and look down through vistas of volumes, is in reality just large enough for a table for the daily papers and shelves for the monthly periodicals.

Another feature of the system of the school, which must have proved satisfactory to them or it would have been changed, not only does not apply to real practice, but has a tendency to give to the future architect a very erroneous idea of his mission in life. I refer to the system in the school of reversing the position of architect and client. The disastrous result of this idea we so often see in America.

In the school, the student is called upon to solve a problem, which is governed by very few conditions, which are expressed in vague and uncertain manner, with the idea, perhaps, of exciting his imagination, and he is expected to impose upon the problem other conditions, which he finds will give him an opportunity of displaying originality in thought, composition or design. To illustrate: The student was given a problem of a hotel on a lake, between a road which ran back of the hotel and the lake. There was a difference of level between the road and the water of the lake, but the amount of this difference was not given. Therefore, the first thing for him to do before he could consider the solution was to establish arbitrarily this difference of level. Had he wished to work in a certain style of architecture he would have made the difference greater or less, as best suited his preconceived idea. The number of guests to be accommodated was not given. Therefore, if he wished to make a large, imposing building, he could decide that the hotel was to receive a great number of guests. If he wished to design a small, unimportant building, giving most of his attention to the gardens, walks and fountains, he was at liberty to decide that there were accommodations for only a limited number. When I asked why a drawing, which had received a medal, had given such prominence to the dining-room, café, restaurant, etc., as compared with the rest of the building, I was told that this particular student had apparently imposed upon his problem the condition that there would be a great number of guests coming to the hotel in automobiles and yachts at the dinner hour.

Another design for the very same hotel was criticised by me for the great prominence given to the storage of supplies. This student had assumed—although he had no right to do so from the conditions—that the hotel was far removed from civilization, and supplies could only be laid in once a year, and therefore would require large storage facilities, and requiring this, it was necessary that expression be given to it.

Another hotel, this time situated on an island near the mainland, the island being traversed by a road which was connected by a bridge with the mainland. This problem, with its solution, might be considered as an example of the highest expression of the teachings of the school, and illustrates most of the points that I have raised. It was first necessary to decide arbitrarily the position of this road on the island, the contour of this island, the levels and topography of the same. It was also necessary to decide the shape of the mainland adjacent to the island, as that would have great bearing upon your design—to decide the position of the best view; to decide the number of people living in the hotel or not living in the hotel who would come in from the neighborhood for dinner.

The first medal drawing for the last-named hotel was a magnificent affair.

The view was established at exactly the right point of the compass, and was beautifully indicated by illuminated arrows, which protruded out of all of the windows on that side. The dining-room, the restaurant, the café, the open-air restaurant, the salon, gambling-rooms, etc., had accommodations for at least two thousand people. The gayety, life and movement, which was indicated on the first floor by wonderful combinations of mosaics, ceiling decorations, sunbursts, points of interest, points of support, great, thick and unnecessary walls and piers, was certainly a work of art, of a certain kind. But it was found, upon examination, that there were about sixty bedrooms on the entire premises. The strange thing about it all was that no one seemed to realize how absolutely ludicrous the whole thing was. False conditions, false solution, false indication, false construction.

It is surely the chief part of an architect's duty to produce an artistic solution of a given set of practical and other conditions; but, after all, a plan must be a real plan, a real arrangement of apartments, suited to meet actual requirements. His real business is not at all with the drawings, no matter how beautifully made, but with buildings and their arrangements. Why reverse the process and give not even the drawings, but the execution of the drawings, the paramount consideration?

Excellence in rendering is good as a training for the student; but, at best, such exercises can be only a means to an end, and it will not do to make them the end in itself. In the successful competition drawings for a Western university, the physical conditions of the ground were entirely disregarded and new conditions imposed. These new conditions were so attractively rendered that these plans were awarded the first place. Now I am told that these drawings have been entirely changed, in order to suit the ground, and the resulting buildings will not even suggest the magnificent conception of the French studio.

Now, as I have said, this system (which really I have not intended to criticise) may be all very well for the schoolboy; it may be all very well for the Frenchman. For the schoolboy it is good as a process of training the mind, precisely as the teaching of ancient Greek may have value as an element in his education. The Frenchman is perfectly justified, from a feeling of patriotism, in his pride in the school. It represents to him his legitimate inheritance from a glorious past. But should we not take warning from the disastrous results of the Renaissance, which were produced by forcing upon a people an architecture which was not their natural inheritance, and was no more suited to their time than is the architecture of the period of Louis XIV. suited to ours.

And so we see, creeping into our every-day architectural practice, into our every-day modes of thought, into our competitions, and elsewhere, where the architecture of the world is to be done, these imported elements of a schoolboy's education. We are unduly magnifying their importance and are even insisting that they are the foundation and reality of architecture. We should glory in our freedom and strive to solve our problems in a truthful and vigorous way, throwing off restraint, rather than seeking to embarrass coming generations by transmitting to them theories, rules and traditions, which have no more bearing on our modern architectural requirements, and are no more suited to our modern life than are the stilted forms of classic literature, so pleasing to the undergraduate student of a dead language.

The Cathedral of Westminster

II.

The Interior

In a former number of this journal* the writer described the exterior of the new cathedral at Westminster, deferring an appreciation of the interior until the work was more advanced. When the article was penned Roman Catholics in England were looking forward to a date when the cathedral might be consecrated with pomp and circumstance. The enthusiasm of Cardinal Vaughan had caused the work to proceed with unabated energy for seven years, the whole structure was roofed in and the windows were glazed. But in March, 1902, the architect, John Francis Bentley, passed away, his death hastened by untiring devotion to his task. An eloquent eulogy of Bentley, both as an artist and as a man, was written by the Cardinal, who greatly mourned his loss. It concluded—"We know what happened to St. Peters and to other buildings in which the plan and genius of the original architect was departed from. Let us maintain the main idea and the unity of Bentley's work to the end." Soon after the Cardinal's own health began to fail, his stately presence was withdrawn from the halls of his hardly completed residence adjoining the cathedral, and on June 19, 1903, he died at St. Joseph's Convent, Hendon. After these events the energy of the cathedral builders flagged, progress in the interior became slow, and the idea of a ceremonial dedication was abandoned.

Enough, however, has been done to enable us to consider the position of Westminster among the cathedrals of the world, and to judge of the ultimate effect of the whole. Among architects the first outburst of enthusiasm seems to be giving place to a more balanced opinion—a feeling that the sky line is hardly satisfying; that the tower is decidedly lacking in breadth, and that as the great arch of the western portal could support nothing but a parapet it were, perhaps, better omitted.* On the other hand the general public are more appreciative than formerly; we hear less of "the factory chimney" and "the Cardinal's railway station." The public are overcoming their prejudice against the unaccustomed, and have been told on the best authority that the thing is good.

The genius of Bentley has given Westminster Cathedral a place amongst others that its size alone would scarcely warrant. True, it covers about 55,000 sq. ft., but there are 10 churches in England surpassing that area, and very many more on the continent of Europe.† Although its interior cannot vie with the immensity of St. Peters, the grace of St. Ouen, the lengthy vista of Ely, the chasteness of Truro, or the loftiness of Beauvais, it rivals internally the majesty of St. Paul's, has surpassed the sturdiness of Durham and may yet equal St. Mark's in richness of decoration. It possesses that almost indefinable quality, a religious atmosphere. Always the interior is solemn, but on dark or very foggy days there is a suggestion of infinity in the height of the piers which the eye follows upwards into the gloom of the grey concrete vault. When the sun shines obliquely through the clerestory windows they are reflected in patches of light upon the deep flanks of the internal buttresses, but when it shines at right angles to the main axis of the church a succession of rays of light alternate effectively with patches of gloom, lengthening the vista and adding to its beauty.

The plan is remarkably compact; few cathedrals of equal area could be contained within so small a rectangle, certainly none in England. For this econ-

*Vol. XII., No. 3, being August, 1902.

*Rights of "ancient light" compelled C. W. Bentley to recess the upper portions of this elevation and to shift the position of the tower. One wonders what would have happened to a "dominant owner" who so opposed the church in the Middle Ages!

†St. Paul's, London, York, Lincoln, Winchester, Westminster Abbey, Ely, Canterbury, Salisbury and St. Albans.



London, England.

WESTMINSTER CATHEDRAL—NAVE.
John Francis Bentley, Architect.
(Photo by S. B. Bolas & Co., London.)

omy of site and material due credit should be given to the architect. The great west doors* open into a narthex below a gallery, or this narthex may be approached from a porch adjoining the campanile, when the vista of it is effectively terminated by the baptistery. Gazing betwixt the red granite columns which sustain the gallery, the spectator may feel he sees the whole area of the church at a glance, but the great size of the main piers renders this impossible in spite of the unbroken vista eastwards. The Lady Chapel and that of the Blessed Sacrament are scarcely seen until the transepts are reached, yet each of these chapels is 70 ft. long and possesses its own aisles. The three domed bays of the nave are noble in their proportions and design. The span of the great arches



WESTMINSTER CATHEDRAL—CHAPEL OF ST. AUGUSTINE AND ST. GREGORY.
London, England. John Francis Bentley, Architect.
(Photo by S. B. Bolas & Co., London.)

*The high altar is at the southeast, but it is convenient to consider the building as truly orientated.

carrying the domes is 57 ft.; their height 90 ft. Not only these transverse arches but the points where each dome rests upon the side walls have deep piers for their abutments. A reference to the illustrations will show that the enclosing or curtain walls are built flush with the *outside* of these pier buttresses, which are deep enough to be pierced by arches for the passages of the aisles and galleries. Such an arrangement is not infrequent in the Gothic work of the southwest of France, notably at Albi, but at Westminster we have also a range of chapels beyond the aisle on both sides. Above the gallery are a series of semicircular headed windows divided only by glazing bars, while the transverse barrel vaults between the piers (and above these windows) are terminated by mullioned lunettes filled with terra cotta traceries.

The third bay of the nave is flanked by transepts nearly as lofty as itself, and each divided into two parts by walls built transversely so as to resist the thrust of the central dome where it impinges upon the nave walls. The transepts are separated from the nave by coupled columns of *verde antico* and *cipollino,* thus maintaining the continuity of the arcade and gallery which surround the nave on three sides.

It is at this point that the plan becomes more complex. The sanctuary bay is contracted in width, its dome having a diameter of 53 ft., as against the 60 ft. of the nave domes. On either side is a narrow aisle, then, on the left the Chapel of the Blessed Sacrament, on the right the Lady Chapel, while beyond each are still outer aisles. Behind the sanctuary is the apse, containing a choir raised above a crypt in true Italian fashion. Varying levels with resultant steps add to the complexity and picturesqueness of the cross views.

The High Altar, a block of Cornish



WESTMINSTER CATHEDRAL—ALTAR AND ARCHBISHOP'S THRONE.
London, England. John Francis Bentley, Architect.
(Photo by S. B. Bolas & Co., London.)

granite weighing fourteen tons, is raised eight steps above the floor of the sanctuary, which is itself several feet above that of the nave. Its dignity has been lately enhanced by a magnificent baldachino, constructed mainly of marble. It consists of a vaulted canopy supported at a height of thirty ft. by eight yellow marble columns ranged in two semi-circular groups. These monoliths stand upon bases of *verde antico* with panels of purple *breccia*. The canopy is of white Canara profusely inlaid with mother-of-pearl and lapis lazuli; even the frieze of the entablature and the soffits of the transverse arches are thus enriched, but with doubtful advantage. The barrel vault is resplendent with mosaic, while



WESTMINSTER CATHEDRAL—BALDACHINO.

London, England. John Francis Bentley, Architect.

(Photo by S. B. Bolas & Co., London.)

the lunettes on either side are filled with gilded metal grilles. When the whole is illumined by concealed electric lights and stands out against the murky darkness of the apse beyond, the effect is both magnificent and picturesque. Flights of marble stairs behind the altar lead to the raised choir, while a series of semi-circular arches open into the crypt below the choir.

Marble arcades which flank the sanctuary carry galleries and smaller arcades which partially screen the organ. The effect of these upper arcades is hardly satisfactory either in color or design. Strongly colored red panels kill the more delicate tints around, while the arches themselves carry merely a thin string course bedded directly upon their crowns. This is another instance of that almost functionless use of the arch which appears in the west front and again in the arched portico of the Archbishop's House.

Across the entrance of the Chapel of the Blessed Sacrament has lately been erected an open screen of gilded bronze. The folding central gates are recessed within an arch enriched with enamels and supporting an exquisitely chased pelican feeding her young—symbolic of sacrifice. This screen took over three years to execute and is unlike anything of the kind in England. Possibly the Spanish *rejas* are its prototype, but, like much other work from Mr. Bentley's office, it is *sui generis*.

A most beautiful chapel is that of St. Gregory and St. Augustine, adjoining the baptistery. Standing against the west wall of the cathedral we look across the font and view the chapel through an exquisite marble screen. A few inserted slabs of *breche violette* only serve to emphasize the ivory whiteness of the *pavonazzo*. The floor of the chapel is of marble and the walls are lined with it up to the level of the window sills. Above all is glass mosaic of great brilliance and richness. The Fathers of the Church stand out in heroic proportions against a scintillating background of gold, while above the altar we see the reception of Augustine by the Kentish King Ethelbert. The wisdom of the architect in leaving a clear field for the mosaic, with surfaces mostly concave and always free from mouldings, has resulted in one of the most successful examples of modern mosaic decoration. The altar is simple in design, but the marbles well chosen for color and figure. Mouldings are few, but there are borders of mother-of-pearl and *lapsis lazuli* inlay. The reredos is of *opus sectile* or mosaic of painted tile work. The chapel still lacks a metal grille intended to separate it from the aisle.

Another beautiful chapel is that of All Souls. The prevailing marbles here are black, grey and white, no sunshine can ever stream through its windows and a sombre effect has been achieved in striking contrast to the former chapel. The design of the mosaics above is open to adverse criticism. Ruskin somewhere describes swags as "masses of all manner of fruit and flowers tied heavily into a long bunch thickest in the middle and pinned up by both ends against a dead wall." What would he have said to enormous swags upon the concave surface of a barrel vault?

These side chapels indicate the manner in which it is intended that the whole interior may be adorned. The question naturally arises whether such a vast scheme is likely to be completed. It is to be hoped that the harmony of the central vista will be undisturbed until the side chapels are all finished. Yellow bricks may seem mean material for a cathedral pier, but when we realize that it takes about 150,000 to build *one* we feel the "Lamp of Sacrifice" is not extinguished. We may look forward to a richer and fuller beauty, and yet doubt whether it will be more expressive than the present crude honesty of the yellow stocks carrying the grey canopy of concrete.

F. Herbert Mansford.

Designing a Metropolitan Hotel

THE PLAZA

In 1890 there was opened to the public what was at that time considered one of the finest hotels in the world—the Plaza. It was situated on a superb site, from which it took its name, and was executed on no mean scale, as its cost of $3,000,000 will testify. Although the building of this hotel was attended with both financial and structural failures, it had a prosperous existence until the keen competition of some of its more fortunate rivals made it more and more difficult for the management to make it pay. Alterations were considered, but soon abandoned on the advice of a well-known hotel manager. It was finally decided to replace the hotel, which had lived but a small part of its effective life, by a new one which should be as much superior to its predecessor as the latter was to some of the old down-town establishments of before the war. This promise has been fulfilled in the recent opening of the new Plaza, which has more than double the capacity of the former building, and which is said to have cost some twelve millions and a half. In point of size the new Plaza is, however, not the largest of New York's many large hostelries, being surpassed in capacity by the Waldorf-Astoria and the Belmont.

The coat of arms of the old Plaza, with which many New Yorkers were, no doubt, familiar, was a rampant lion, that was particularly conspicuous on the mosaic floor of the entrance on the Plaza. This emblem, it was recently suggested to the writer by a friend, would be changed in the new Plaza to a well-shaped dollar sign, to symbolize its millionaire patrons. It is stated at this time that such is not the case, and that in the new hostelry transient accommodation is to be had at the same reasonable prices that prevail at such houses as the Astor, Belmont or Knickerbocker, while it is admitted that many New York millionaires who have permanent apartments in the new hotel do pay fabulous rentals for the same. Such high rents are necessary in order to make profitable such a gigantic enterprise as the Plaza.

There must be some limit of allowable expenditure per capita of accommodation in order to arrive at the possibilities of the investment. It is not possible to lay down a definite law for this expenditure per occupant. An extensive comparison of costs of various hotels would throw little light on the matter because of the diversity of results. Hotel managers and operators will admit, however (though they may not agree on the basis) that a maximum expenditure per occupant is taken into account by them in the constructing, equipment and decorating of the modern hotel building. How the estimate is arrived at it is difficult to say. Experience and judgment are, perhaps, the only guides.

When this fixed per capita expenditure is exceeded it becomes necessary to resort to some expedient to increase the income on some part of the rentable area. This is accomplished in the Plaza by creating a considerable number of large rooms which will be used *en suite* by permanent patrons of the hotel. The increase in rental which results from these apartments must pay for what has been added in equipment and decoration to the smaller and less desirable rooms, which profit thereby. Such an arrangement enables the management to give the occupants of the smaller rooms more for their money than they would otherwise obtain. It involves a greater initial expenditure but will doubtless justify itself in the long run.

To attract the kind of patronage that is requisite for success the location of the Plaza certainly leaves nothing to be desired. The site is, without exception, the most unobstructed and charming which could have been selected for a large metropolitan hotel. It is not as accessible as some of its competitors, but its shortcomings in this respect are more than balanced by the advantages which

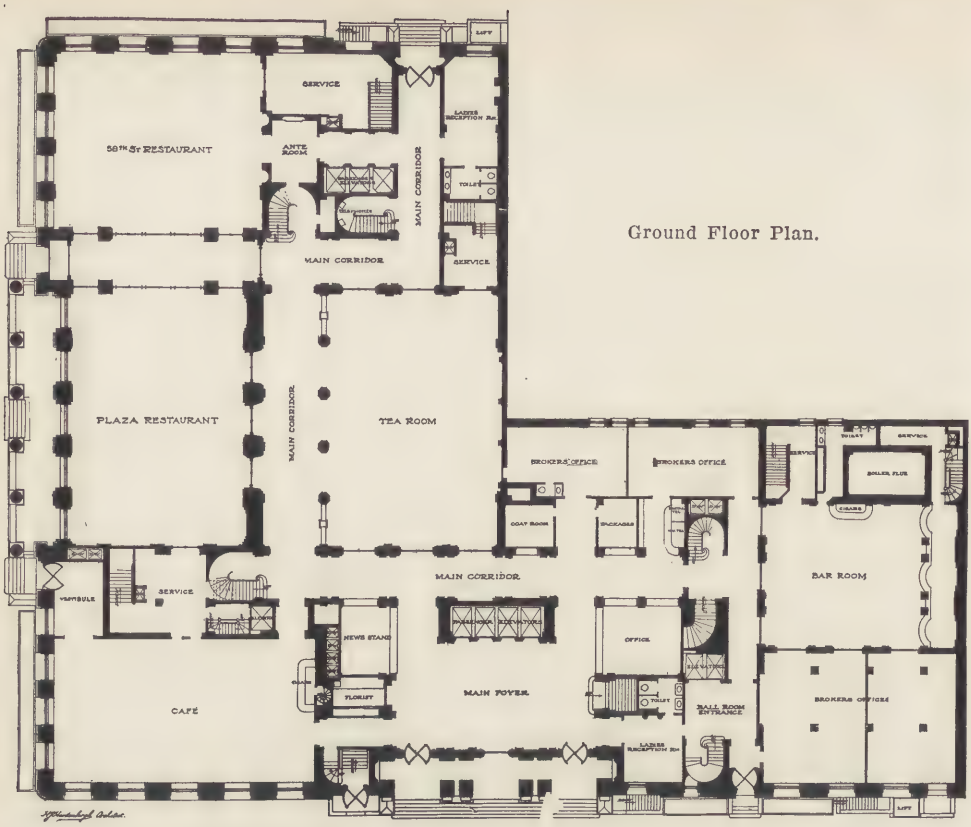


THE PLAZA—MAIN CORRIDOR.
59th Street and 5th Avenue, New York. H. J. Hardenbergh, Architect.
(Photo by A. Patzig.)

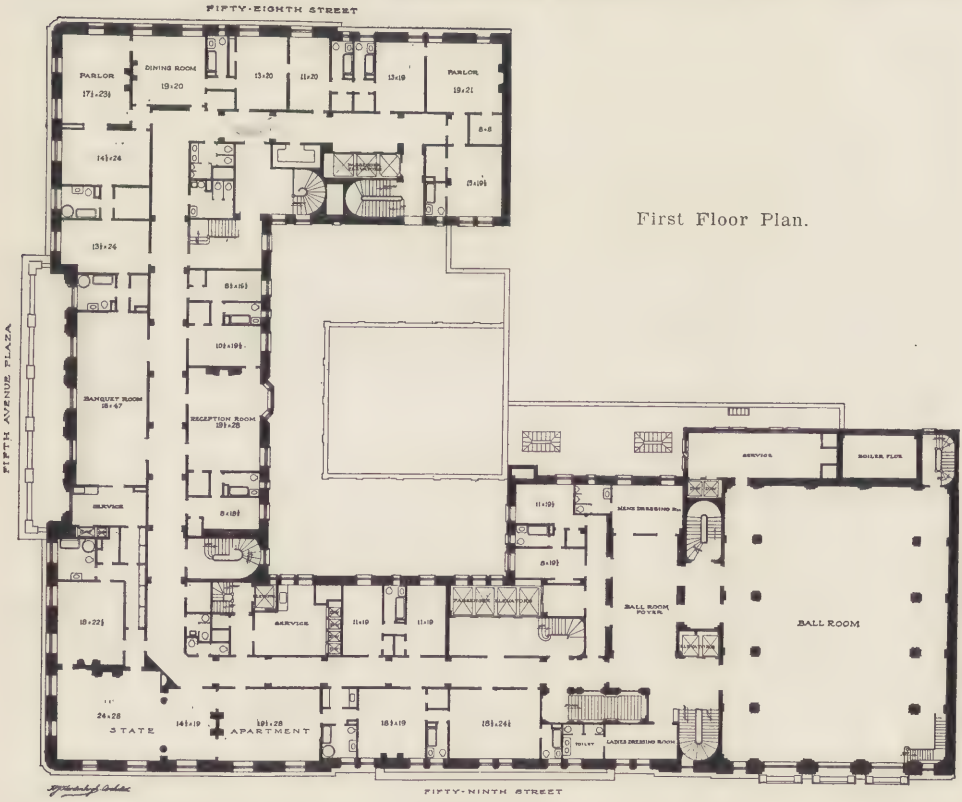


THE PLAZA.

59th Street and 5th Avenue, New York. (Photo by A. Patzig.) H. J. Hardenbergh, Architect.



Ground Floor Plan.

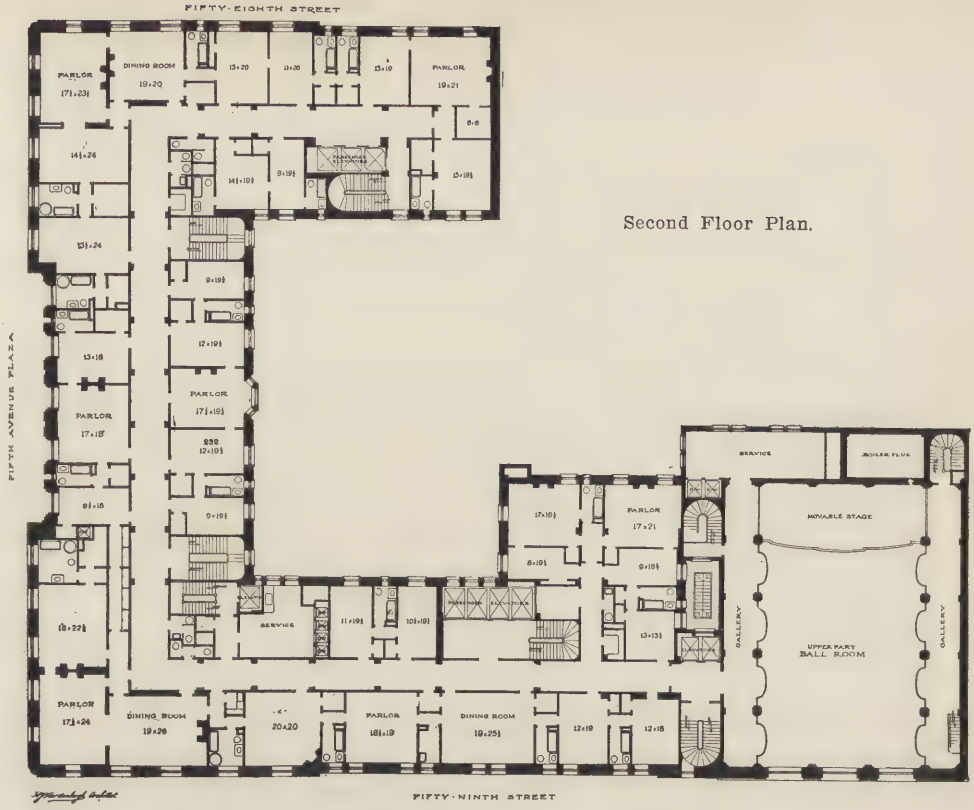


First Floor Plan.

THE PLAZA.

59th Street and 5th Avenue, New York.

H. J. Hardenbergh, Architect.



Second Floor Plan.



Upper Floor Plan.

THE PLAZA.

59th Street and 5th Avenue, New York.

H. J. Hardenbergh, Architect.

it derives from its location on a public square at the entrance to a park. These advantages of position are permanent, and the building's frontages on three streets further add to the permanence.

The appointment of the hotel includes, of course, besides sumptuous decoration, the latest devices that make for facility of operation and the maximum of comfort for the most exacting and fastidious patrons. Many of these chambers are larger and much better lighted than the important rooms of the ordinary New York City house on a twenty-five foot lot. Here a wealthy man can establish a permanent, attractive residence, without the trouble of having to look after its maintenance; nor need he dismiss his servants when he goes abroad or to his country seat. The hotel does all this



THE PLAZA—TYPICAL DRAWING ROOM.
59th Street and 5th Avenue, New York. H. J. Hardenbergh, Architect.
(Photo by A. Patzig.)

hotel patron. It is not necessary here to enumerate and describe the numerous items that go to make up the equipment of this up-to-date establishment. Suffice it to say that the Plaza leaves nothing to be desired in the way of conveniences that a wealthy American could desire to have installed in his own home.

A glance at the plans, which we reproduce herewith, will give some idea of the extent of the rooms which are to be used *en suite* as apartments by permanent for him, provided he is willing to pay for it. And there are many wealthy families who really live more economically by renting permanently an apartment in a hotel than by maintaining their own establishments in the city. The most desirable rooms in the Plaza are, of course, those which have an outlook to the east and north, particularly to Fifty-ninth street, which commands the most beautiful view of all—that into Central Park and its charming little lake.



THE PLAZA—TEA ROOM.

59th Street and 5th Avenue, New York. H. J. Hardenbergh, Architect.

(Photo by A. Patzig.)

The State Apartment, which is situated on the first floor, has accordingly been placed at the corner of Fifty-ninth street and the Plaza, combining accessibility with beauty of surroundings.

To the occupant of a comfortable apartment in the Plaza, in gazing out of the window on to the traffic below, or into the more rustic beauties of the park, there comes no suspicion of the multitudinous difficulties that have been encompassed by the minds that conceived this gigantic pile and made it feasible and agreeable to live in. Him, if he be the individual we have in mind, the towering, skyscraping mass inspires with awe and admiration. He is charmed by the great columns or by the ornateness of the interior decoration. Little does he think that all this splendor which dazzles his eye is but to conceal those other thousand and one pipes and flues and wires whose installation is intended solely for his convenience. It perhaps never occurs to him that it is these little invisible canals of a great structural system that keep the architect awake nights and make his life positively a burden. The contemporary architect who designs skyscrapers, no doubt, often laments his fate for living in such an age of science and invention. His problems are constantly increasing in difficulty while his architectural resources remain very much as before. He is constantly being called upon to do something which has never before been done; and if he fails to please the exacting critic he very often makes himself the butt of ridicule, despite the best endeavor and intentions.



THE PLAZA—TYPICAL BEDROOM.
59th Street and 5th Avenue, New York. H. J. Hardenbergh, Architect.
(Photo by A. Patzig.)



THE PLAZA—THE PLAZA RESTAURANT.
(Photo by A. Patzig.)

59th Street and 5th Avenue, New York. H. J. Hardenbergh, Architect.

Such, however, is the architect's inevitable lot; and if he achieves a moderate degree of success now and then in designing skyscrapers, let him take new courage for the next attempt. The public will never know at what cost of mental effort his successes and failures are obtained.

An architect who has had an extensive experience in designing skyscraper hotels was asked by the writer to state what are the greatest difficulties that the designer has to contend with in designing a hotel like the Plaza. "The most difficult problems that confront the architect," he said, "are chiefly two; suiting the building to the site, and secondly, getting a sufficient amount of rentable area to warrant the investment." Each of these factors, it must be understood, is but the summary of numerous conditions which the architect is bound to accept as the inevitable requirements of his client and his problem. In suiting the building to its site there is, of course, to be taken into account the character of the surroundings from the artistic point of view; but this side of the problem is given consideration only after such prosaic matters as the manager's requirements for his patrons and for his staff have been carefully noted. The possible future extension of the hotel is also an important factor for the architect to take into account. It is a strange fact of the hotel business that many of New York's largest hotels have been extended. We can cite such examples as the Waldorf, the Manhattan and the Martinique; and in those establishments where the architect has foreseen such extension and provided for it, both in his plan and in his architectural treatment, results have proved most satisfactory. In the Plaza this has been allowed for by the purchase of additional property in Fifty-eighth street, which will, no doubt, be called into requisition in the near future to increase the already ample accommodations of the house.

In designing a hotel the manager, who as a rule obtains a long lease on the premises, becomes for the architect the real client, although he may not have any real ownership in the building. It is he who is to make the investment profitable for the owner or owners, and who must therefore exercise almost dictatorial power (in his province, of course,) to secure the most suitable and economical conditions for operation. The manager has undoubtedly a very responsible office to perform in the building of a large hotel and must, to a certain extent, leave his impress of indivuality upon the building. This does not, however, imply that the architect has a comparatively unimportant part to play in its design. He has his own legitimate office to perform in accepting so much of the requirements as are inevitable, and welding them into an economical and attractive composition. As the manager was governed, in stating to the architect his needs, by an experience in the operation of hotels, so the architect also is governed, but by a different set of rules—building laws, the laws of propriety in his profession, and lastly, by commercial conditions. In all his work he is thus continually striving to keep within the bounds of the law, to live up to the best traditions of his profession, and to keep within the means which the client puts at his disposal. A better understanding by the public of the difficulties which an architect encounters in satisfying these severe taskmasters cannot fail to raise him in the popular estimation. It is impossible for an outsider to imagine the number and variety of the schemes which must be rejected for one reason or another, until there is found a solution which combines the greatest number of advantages with the fewest disadvantages. For example, the writer learned from the architect of the Plaza that it was planned, at first, to have the main entrance on the Plaza side; but while such an arrangement, no doubt, would have been more satisfactory from a purely aesthetic point of view, it was found impracticable as regards interior economy. Here we mark the second difficulty which was mentioned above, namely, obtaining a sufficient amount of rental area to make a profitable investment. In this matter of placing the entrance in the most conspicuous place and giving it the greatest architectural emphasis, the reader will notice that the architect has made a compro-



THE PLAZA—58TH STREET RESTAURANT.
(Photo by A. Patzig.)

59th Street and 5th Avenue, New York.

H. J. Hardenbergh, Architect.



59th Street and 5th Avenue, New York.

THE PLAZA—CAFE.
(Photo by A. Patzig.)

H. J. Hardenbergh, Architect.



THE PLAZA—BARROOM.
(Photo by A. Patzig.)

59th Street and 5th Avenue, New York.

H. J. Hardenbergh, Architect.

mise in preserving the outward importance of the Plaza front by treating its central feature on the ground floor with a projecting colonnade as though it were the main entrance, which a look at the ground floor plan will show not to be the case. Whether or not this was a happy compromise is a debatable question. There can be no doubt that the



THE PLAZA—KITCHEN.
59th Street and 5th Avenue, New York. H. J. Hardenbergh, Architect.
(Photo by A. Patzig.)

colonnade deprives the restaurant behind it of a considerable amount of light.

In obtaining the greatest amount of rentable space the planning of the ground floor is in great measure the determining factor. The position of the entrance and the relative positions of the restaurants and other large rooms with their services and communications practically determine the plans of the upper floors by more or less fixing the position of staircases and elevators. In a building like the Plaza the upper floor plans are further dictated by conditions of lighting; and the central corridor, parallel to the exterior walls with rooms on either side, is almost a foregone conclusion. This type of plan, however admirable it may be, implies "dark corners" at the interior angles, leaving areas which must be deducted from the rentable space unless it is possible to utilize them for the secondary staircases or freight elevators. In the present instance these lost areas have been so utilized in part, while toilets and baths grouped around a ventilating shaft occupy the remaining space.

The Building Code, as regards skyscrapers, is very severe in its application, especially to the skyscraper hotel. The percentage of area which may be built upon was fixed before hotels entered the skyscraper class and rose to a height of from twelve to eigh-



THE PLAZA—BALLROOM.
(Photo by A. Patzig.)

59th Street and 5th Avenue, New York. H. J. Hardenbergh, Architect.
This room was formally opened October 16th by a dinner of the Pilgrims of the United States to the Lord Bishop of London.

teen stories. In these tall buildings the law requires that an unobstructed area, in proportion to the height, shall be left in order to afford the greatest possible amount of sunlight and air. A building which is six or eight stories high will accordingly occupy a proportionally greater percentage of the lot's area than one which is, let us say, eighteen stories in height. Such discrimination was not intended by the law when passed, but has resulted as a natural consequence to new conditions with which the law has not kept pace. It is conceivable that the present law might be amended in some such way as the following: To buildings under a certain height the present law might continue to apply. To buildings exceeding in height this established limit it might be granted to occupy the same percentage of area as for the lower buildings *up to a certain height,* when this allowable percentage could be so decreased at stated heights as to reach a smaller area than is at present stipulated for a building of the same height. Such an amendment would give a greater rentable area in the lower part of a building, where space is more valuable, without materially decreasing the amount of light and air that were intended in the law as it stands. Now that the Building Code of New York is being revised, it is to be hoped that such questions will receive the revisers' serious attention.

In treating of another hotel in a recent issue, it was remarked that the decorating of our large hotels is proceeding along more rational lines, recognizing the fact that the inmates of a hotel have a right to expect their surroundings to be entertaining and amusing. In the Plaza we do not find any indication that such a point of view has been entered into, and if we are to express our opinion on the merit of its interior decorative treatment we should say that it is characterized by a failure to make the public rooms entertaining. While the café and the barroom on the ground floor are very pleasing in effect, they lack, nevertheless, the quality of being also amusing and diverting. The two restaurants, for instance, are very gorgeous in their ornate, coffered ceilings and glittering chandeliers, but they are not rooms which appeal by their appropriateness as places in which it is inviting to eat. The palm room, called Tea Room, is a spacious, airy and well-lighted room in which the leaded-glass domelight is the most conspicuous feature. The use of mirrors in the wall opposite the entrance to this room is a happy thought. The most ingenious use of mirrors in the Plaza is to be found in the ceiling beams of the café on the ground floor. In this room, of which we reproduce two views, the ceiling beams have been inlaid with mirrors in such a way as to give the beams the appearance of highly decorated trusses. It is this simple device which, in fact, accomplishes more in giving a value to the decoration of this room than the elaborate wood work or the painted ceiling.

H. W. Frohne.

An Interesting Skyscraper

To the Editor of the Architectural Record:

One of the most conspicuous of the new skyscrapers, to one who is privileged to frequent its site and neighborhood, is what calls itself the "Hermitage" in Seventh avenue, just below Forty-second street. At the risk of seeming to give a puff to the institution, from which I give you my word that I have received no sort of consideration, pecuniary or "accommodative," present or prospective, will you allow a lover of architecture to jot down some praises of the same, from the architectural point of veiw? It seems, all the same, and it is even necessary to an understanding of the architecture, that the notion of the projectors is to provide a place where the casual wayfarer may make himself at home, and even, if he have punctually paid his rent in advance, revisit the glimpses of the metropolitan moon, with the assurance of finding his "things" just as he left them, dusting excepted. In that case, the place is well named and well intentioned. A place where you can leave traces of your own inhabitancy and of your intention to resume habitation, with the certainty of not finding it too much "swept and garnished" for alien occupancy before your return—

> Minds innocent and quiet take
> That for a heritage.

However, this particular character of the place is not expressed and is perhaps inexpressible in the architecture, wherewith is our concern.

The author had rather unusual opportunities and advantages. The more modest in dimensions a skyscraper is, the easier it is to maintain the conventional columnar proportions or nearly so. If we were still limited to nine stories, let us say, how easy to give two to the base and two to the capital and five to the shaft without too much shocking the traditional sense of proportion. But nine stories no longer constitute a skyscraper, and, while they did, it is noteworthy that almost no designer recognized the columnar proportion and disposition as his motive. At least I can recall none who did. The building we are talking about has a modest height of fourteen stories. It was comparatively simple for the architect to assign three (perhaps practically two, but in architectural importance clearly three) to his base, and two or three with the story of "necking" to his capital, relegating the remaining eight to his shaft. It is quite true that his work is already adjoined or confronted by works that make his look humble, but all the same his moderate dimensions give him a chance to withstand the Titanic competition by preserving his traditional proportions far better than the designers of the spindling towers can do. And, again, it is in his favor that his work, if not recognizable as a "hermitage" is at least recognizable as a habitation, and admits of divisions at top and bottom, at capital and base, which would be, and therefore would look, entirely arbitrary in an "office building." In an office building, by hypothesis, every story between the very uppermost and the very undermost has precisely the same function and significance, and hence any other grouping or variation of the units than this distinction recognizes is forced and capricious. And this even apart from the common and unfounded assumption that the lower stories really carry the upper, and should, therefore, be of a more solid and massive aspect. In a habitation, on the other hand, it is not evident, nor even necessarily true that the second story, say, is functionally the same as the third, or that the eleventh story, say, is functionally identical with the twelfth, and ought logically to be treated in the same way. The architectural division in the high hotel is more plausible than the architectural division in the high office building.

So that the architect of the Hermitage was logically justified in his assumption, whatever the facts may happen to



"THE HERMITAGE."
7th Avenue, near 42d Street, New York.
Robert D. Kohn, Architect.

be, that the three stories of his base and the stories of his capital were functionally different from the eight stories of his shaft, in which, as his treatment avows and insists, the functions of the eight stories are all alike, and no story different from another story in glory except possibly by the "accident of position" for advantages of air and light. A hotel, in other words, is a much more complicated organism than an office building, and is entitled and even required to be treated as such.

That is the good luck of the designer of the "Hermitage." But it is good luck only in the hands of the right man. For there are hotels and apartment houses in New York quite as ugly and inexpensive as the ugliest and most inexpressive of the office buildings. It were invidious to name them, or their authors.

Holding always fast to the columnar assumption, as imposing itself upon the designer of a building of very restricted area and unrestricted altitude, let us consider how the architect of the "Hermitage" has dealt with his opportunity, how he has succeeded with each of his members, how he has succeeded in the assemblage and the ensemble. The base one hails at once as admirable. It is

quite true that the four sandstone columns of which its structure consists, the two flankers backed with brickwork, the two intermediate standing free, are not only actually but obviously inadequate to the task of supporting the superincumbent mass of eleven stories. But they do not really make any pretence of supporting it. One feels that the real structure consists of the four piers which are almost evidently not piers but posts, and that the architectural features which denote the essential members are not themselves the members but either envelopes or frontages of the members, in the present case doubtless frontages. They are masks, there is no question about that, but they are not the less impressive and hardly the less expressive. They reveal even while concealing, even by concealing. So they concur with the whole general assumption that it is not practically permissible to expose the actual material of your structure, oxidizable and torsible under heat as that material is. What shows must be a mere envelope, but an envelope that fits, like the sculptured drapery through which the structure of the nude is felt. This is the best you can do with the "skeleton construction" and there are not many examples in which it is so well done as here. The effect is excellent.



"THE HERMITAGE"—DETAIL OF BASE.
7th Avenue, near 42d Street, New York. Robert D. Kohn, Architect.

Even in the base, however, questions arise. The assumption that the superstructure of a skeleton building, like that of a masonry building, actually stands upon and is supported by the visible sub-structure is of course baseless. To be sure the abandonment of it would re-

sult in making the building architecturally baseless. Hence one cannot quarrel with the author of the "Hermitage" for the string-course in which this convention is embodied, nor possibly for the four monogrammed cartouches which carry it to the point of seeming assertion that the uprights which are developed in the shaft cease and determine above the second story. But decidedly one can quarrel with the protrusion and emphasis, above this point, of the subordinate and unsymmetrical uprights which so obviously denote a subdivision that is a mere convenience of interior arrangement, and has nothing to do with the main organic and structural scheme of the building.

This subdivision is so insisted on and emphasized in the shaft as to weaken and confuse the spectator's appreciation of the essential facts of the case. True, the triple division which is the essential structure is insisted on by the four piers, emphasized at the base by the columns, emphasized even by the cartouches which we have been questioning and which seem to constitute corbels or stops, as certainly they do constitute emphatic interruptions of the prolongation to the bottom of the main supports. At the top it is excellently and forcibly emphasized by the projections which are here made available as the corbels of a balcony, and herald the introduction of a new motive and a third member, the capital. This is as legitimate as it is effective, for the tall dormers at least might stand upon the substructure, if they were of real masonry, which, in fact, they might be. But it is the prominence given to the secondary lateral division, in the protrusion of the secondary piers which mark it, to which one feels bound to object as tending to weaken and confuse the primary division marked by the four great and continuous piers. Let us admit the necessity of the subdivision and of the assymmetry of the fenestration of the two flanking bays. At best it is an unfortunate necessity and it was not for the architect to call attention to his misfortunes, but rather to divert attention from them, by passing over them as lightly as possible. This was entirely feasible in the present case, by simply keeping the whole front in one plane but for the projection of the four essential and organic piers. As a matter of fact, by protruding the thin strips of pier, the "lisenes" of his two flanking bays, to the plane of the main piers, he has emphasized their narrowness, belittled the piers which were to be emphasized, and accentuated the awkwardness of the arrangement. Nothing at all is gained by this treatment and much is lost. The architect, contemplating the finished product, must regard this feature as a blot upon his building.

Of the capital, again, one has nothing but good to say. One is entirely entitled, at the top of a skyscraper, to "treat resolution" to this extent. In fact, the columnar notion seems to demand that the shaft shall be like the shaft of a column, deprecating notice on its own account, as featureless as may be between the feature at the top and the feature at the bottom. And in fact the equal fenestration of the middle part of a tall building gives it almost the equable and monotonous aspect of the unbroken masonry of its prototype. At the top, as we have just been saying, one is no longer bound to the exposition of the steel frame, as has been illustrated, among the works of the designers who have essayed a treatment of the skyscraper at once logical and artistic, in the Bayard building of Mr. Louis Sullivan in Bleecker street, where actual arches of masonry are turned between the uprights of the frame. So in the present instance, the slight backward slope of the Mansard, the "finishing" and coping of the side wall, though it be but the veneering of a metallic frame, and the design of the dormers as actual and self-subsistent constructions of masonry are all abundantly justified. And the detail, like the detail of the base, is all artistic and effective, good in design and successful in scale with reference to its situation and its function, all clearly the work of a sensitive and trained designer. Barring the unfortunate variegation of the central seven stories, to which we have sufficiently referred, "The Hermitage" comes near being a model tall building in its kind. *M. S.*

Baron Haussmann and the Topographical Transformation of Paris Under Napoleon III.

III.

The Premier Réseau and the Rectification of the Grande Croissée

It has been necessary to discuss at length the development of the plan of Paris before the advent of Haussmann. The dominant characteristic of his administration was its broad appreciation of the work which had preceded. He realized perfectly that he was only one of the many masters who had assisted in the solution of this vast problem, and taking up the task where the older men left it, he finished it in a manner which would have given them supreme satisfaction.

When Haussmann came up from Bordeaux, in June, 1853, leaving his brilliant administration of the Gironde, he found the situation well understood. The Emperor had taken up the Napoleonic traditions. Like the great Bonaparte he was filled with a desire that the capital of his Empire should be "quelque chose de fabuleux, de colossal, d'inconnu jusqu' a nos jours." A crude sort of magnificence would doubtless have satisfied him; but his sense of proportion was correct. He knew that he had a great, growing and proud city under his hands, and that its map must be drawn to fit and please.

But what Louis Napoleon best understood was the sociological and hygienic condition of modern civilization. The Napoleonic dynasty always maintained that it was born of the Revolution, and that its chief function was to accelerate that movement. Napoleon III. appreciated fully all the utilities for which the Revolution stood. He had before him a city in which much had been planned, but little accomplished. It was still an old mediaeval town, to which a magnificent modern population was trying to accommodate itself. The sympathetic duty was forced upon him of making a suitable home for these people. As Prince-President and as Emperor before the coming of Haussmann he labored diligently toward the performance of his task, but the instrument which he required was not at hand. The excellent Berger, who then held the office of Préfet de la Seine, was utterly unable to grasp the ensemble of the Paris map, and Haussmann appeared at the right moment to replace him.

We have shown in previous articles that in all its larger lines the plan of Paris had already been carefully studied. This study, however, fine as it was, and important, was largely that of the drafting-board and library. Even the serious work of the first Napoleon and Louis Phillipe made little impression upon the vast, incoherent mass of the city. In his Mémoires, Haussmann draws an interesting picture of the situation in 1853. The general appearance of Paris at that time is well shown by the etchings of Martial, a superb record of the disappearing town, several of which we reproduce in the illustrations.

The Civic Center of Paris.

A curious phase of the situation at the beginning of the Second Empire was the fact that the center of gravity of Paris was drifting rapidly toward the northwest. The true port of Paris is at Saint-Denis, and the commercial forces are constantly pulling the city in that direction. In 1853 the center had reached a point a little to the west of the present location of the Opéra. In any American city a fact like this would have dominated every consideration. The civic center would have been placed as near as possible to the actual center of forces. Not so in Paris. The sympathetic French mind would not tolerate a cold-blooded commercial solution of the prob-


Richard
Boulevard
Tuileries



MAP OF THE CENTRAL REGION OF PARIS, AFFECTED BY THE OPERATIONS OF THE PREMIER RESEAU.

lem. The historic center of Paris is the Ile de la Cité, and this must also be the monumental civic center.

Even the engineers and bankers who built the great railways between 1842 and 1848 bowed before this sentiment, and placed their original stations in a circle, the center of which was, approximately, in the Ile de la Cité.

This determination to retain the civic center of Paris in the Ile de la Cité is the key to the scheme for the transformation accomplished under the Second Empire.

The Grande Croissée.

If, in the plan of Paris, one assumes that the old Roman Cité is still the center of the modern metropolis, the next and logical step is to the consideration of the Grande Croissée; and that step Louis Napoleon, Haussmann and the people of Paris took with true French directness. The two great trade routes, following closely the old Roman roads, and crossing approximately at the Ile de la Cité, were recognized, enlarged and restored to their normal function in the city. An American student or architect, accustomed to the brutal civics of our land, finds it difficult to conceive a vast metropolis entering upon a period of transformation on historic lines, and in the face of conflicting commercial considerations; but that is precisely what happened in Paris, and that is, for our present purpose, quite the most significant and characteristic fact to be noted in the administration of the Grand Préfet.

The Réseaux.

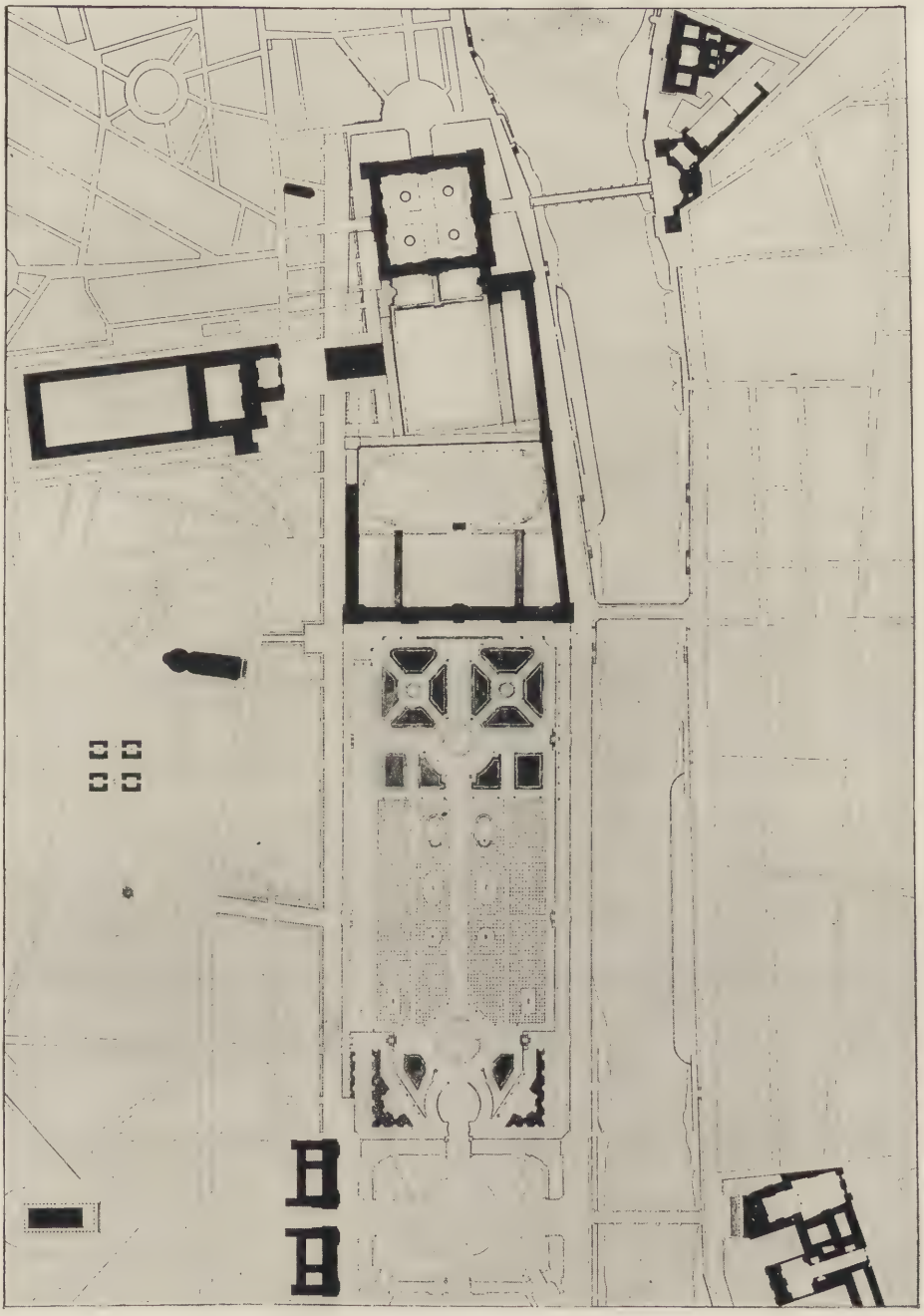
In the transformation of Paris the term réseau was adopted for administrative purposes, and is not necessarily topographical in its significance; at the same time the three systems or réseaux in which the work was arranged did correspond in a general way with the topography. The Premier Réseau officially included simply the improvement provided for by the law of 1855, appropriating sixty million francs for the Rue de Rivoli, the Boulevard de Sébastopol and the region surrounding the Hôtel de Ville, Tour de Saint-Jacques and the Place du Châtelet. As this includes the greater part of the Grande Croissée, it may be permitted, for our present purpose, to consider the Premier Réseau as loosely identical with the Grande Croissée, although the later part of the work was included in the appropriations for the Deuxième and Troisième Réseaux.

The Rue de Rivoli.

In the old maps, and historically, the east and west arms of the Grande Croissée were composed of the Rue de Saint-Honoré on the west and the Rue de Saint-Antoine on the east, united through the center of the city by an extraordinary network of narrow and tortuous streets, well shown in section 5 of the map of Verniquet, printed in our second article. Passage by this route was always difficult, and the necessity for improvement must often have suggested itself. As we have several times noted, it seems quite probable that the people who designed the Place du Thrône and the Place de l'Etoile intended to create some monumental connection between them. Nothing, however, was done until the time of Napoléon Bonaparte, when the first section of the Rue de Rivoli, opposite the Tuileries gardens, was built. The plan of Percier and Fontaine for this section, which we reproduce, draws the street to the Palais Royal. The section parallel with the garden was opened in 1802.

Something had already been done in the way of clearing out the adjacent city when Haussmann's operations on the Rue de Rivoli began. They proceeded in four sections, which it is not necessary to describe here in detail, from the Palais Royal to the old Place Birague, where union with the Rue de Saint-Antoine was practicable.

Cutting a rather irregular street 22 mètres wide through an old city was a simple matter. In the transformation of Paris, however, the making of a street carried with it the entire reconstruction of the region through which it ran. The continuation of the Rue de Rivoli to the Rue du Louvre, and the construction of the Rue du Louvre itself were part of the scheme for the completion of the Tuileries and Louvre palaces. Into an



SCHEME OF THE FIRST NAPOLEON FOR RUE DE RIVOLI.
From Percier and Fontaine Monuments de Paris.



THE CHURCH OF SAINT GERMAIN AUXERROIS, THE MAIRIE OF THE FIRST ARRONDISSEMENT AND THE NEW TOWER.
(From lithograph.)



PLACE DU CARROUSEL IN 1849.
(From etching by Martial.)



RUE DE JEAN PAIN MOLLET IN 1847. (From etching by Martial.)

account of this great architectural undertaking we cannot at present enter. The work was national, paid from the civil list, and did not directly concern the city of Paris and Haussmann.



Rue de la Vieille Lanterne in 1854, Showing Fountain of the Place du Châtelet. (From etching by Martial.)

The condition of the region within and without the quadrangle of palaces, however, did concern Haussmann very much. The original Place du Carrousel of Louis XIV. occupied only a small part of the interior space. With the exception of three small courts in front of the Tuileries, the rest of the region was filled with a dense mass of old houses, which extended to and enveloped the Palais Royal. More disgraceful than the condition within the line of palaces was the condition without. The Louvre quadrangle was completely surrounded by old buildings; even within the shadow of the Colonnade itself. Haussmann cleared all this away, and created the greater Place du Carrousel and Place du Louvre as we see them to-day.

It was characteristic of Haussmann to respect the old church of Saint-Germain-l'Auxerrois, which he was urged to destroy, and to arrange a monumental mass about it which should have some importance in contrast with the Louvre. He was not especially pleased with the manner in which the architect Hittorff performed his part of the task in the Mairie of the First Arrondissement, considering it a much too literal copy of the old church. The tower by Ballu was more successful, although as seen over the roof of the Louvre it has the curious effect of accentuating the slight deflection in the axis of the palace.

Another interesting monument which lay in the course of this improvement was the fine tower of Saint-Jacques-la-Boucherie, which dates from 1508. The church itself was destroyed early in the Revolution. The tower stood on an eminence, and, as the new street passed at a lower level, Haussmann, not wishing to disturb it, supported the entire mass, and placed under it a new basement, a famous piece of engineering in those days. The Square Saint-Jacques gave it proper isolation and vista.

The Grande Châtelet, at first a fortress and afterwards the municipal prison of Paris, was destroyed in 1802. In the square which replaced it the Fontaine du Palmier was built by Napoleon in 1808 from the design of the architect de Bralle. Situated near the actual point of intersection of the two arms of the Grande Croissée, the Place du Châtelet became a point of strategic importance in

Haussmann's scheme, and a difficult matter to arrange satisfactorily on account of the entire lack of symmetry in the relation of the Pont au Change to the several intersecting avenues; due to a lack of study on the part of the original designers of the Boulevard du Centre. In order to give the ensemble a dignified center, it was necessary to move the Fontaine du Palmier twelve mètres toward the west into the axis of the Pont du Change. It was at the same time raised four mètres. The change was made April 1, 1858, by Alphand and Davioud.

The Rue de Rivoli improvement carried with it the reconstruction of the Halles Centrales and the completion of the Square des Innocents.

From the earliest times there had been a market-place in this region. This old agora became in the middle ages one of the most important marts in Europe. It was, like all mediaeval markets, a wretched complex of crooked streets and unwholesome rookeries, and retained this general character to the moment of the inception of the Second Empire, when Napoleon III. undertook its entire reconstruction to meet the requirements of modern civilization. The Emperor was much attracted by the iron train shed which had been built for the station of the Chemin-de-fer de l'Est, and after a long struggle against the prejudices of the architect Baltard, Haussmann secured from him the present convenient and monumental market of Paris in the same style of construction. The creation of the Halles Centrales carried with it the opening of two large streets to the river—the Rue du Pont-Neuf and the Rue des Halles—and, of course, the complete renovation of the included and adjacent spaces.

The region between the Châtelet and the Hôtel de Ville was the bottomless pit of old Paris. In this unwholesome network of crooked lanes the Rue de Saint Honoré and the Rue de Saint-Antoine tailed off and connected through the Rues de la Tixeranderie, de la Coutellerie, Jean Pain Mollet, des Ecrivains, de la Beaumerie, de la Tableterie, des Fourneurs and des Déchargeurs. The appalling state of things in this vicinity Haussmann describes at length. He was much amused by the condition of an old rookery in the Rue des Teinturiers, which tried to fall and could not. It simply leaned against the house on the opposite side of the street. "Et quelle population habitait la."

The Hôtel de Ville had been completed in the reign of Louis Phillipe, but the region about it remained essentially in its mediaeval condition. The Place de Grève looked much as it did when it was the common execution-place of the city. Haussmann rectified the place and quai, and drew the Avenue Victoria in the axis of the Hôtel de Ville through the Place du Châtelet. The Pont Nôtre Dame was reconstructed to lower the grade. Haussmann has been blamed for the loss of much picturesqueness in this region; but this has been more than compensated for by the quiet dignity of the result. The Rue de Rivoli was completed to its intersection with the Rue François Myron, where it was continued by the Rue de Saint-Antoine. The Place de la Bastille is so largely a creation of the reigns of Napoleon and Louis Phillipe that it need not be considered here.

The strategic importance of the Rue de Rivoli is obvious.

The Rue de Rivoli is not a fine street, as compared with many of Haussmann's later productions. Its form was predetermined and forced upon him by a certain historic necessity. The construction of the street, however, and the improvements which went with it, disemboweled old Paris and forced the lower classes into the faubourgs. The disengagement of fine monuments which it accomplished more than compensated for the rather uninteresting character of the street itself.

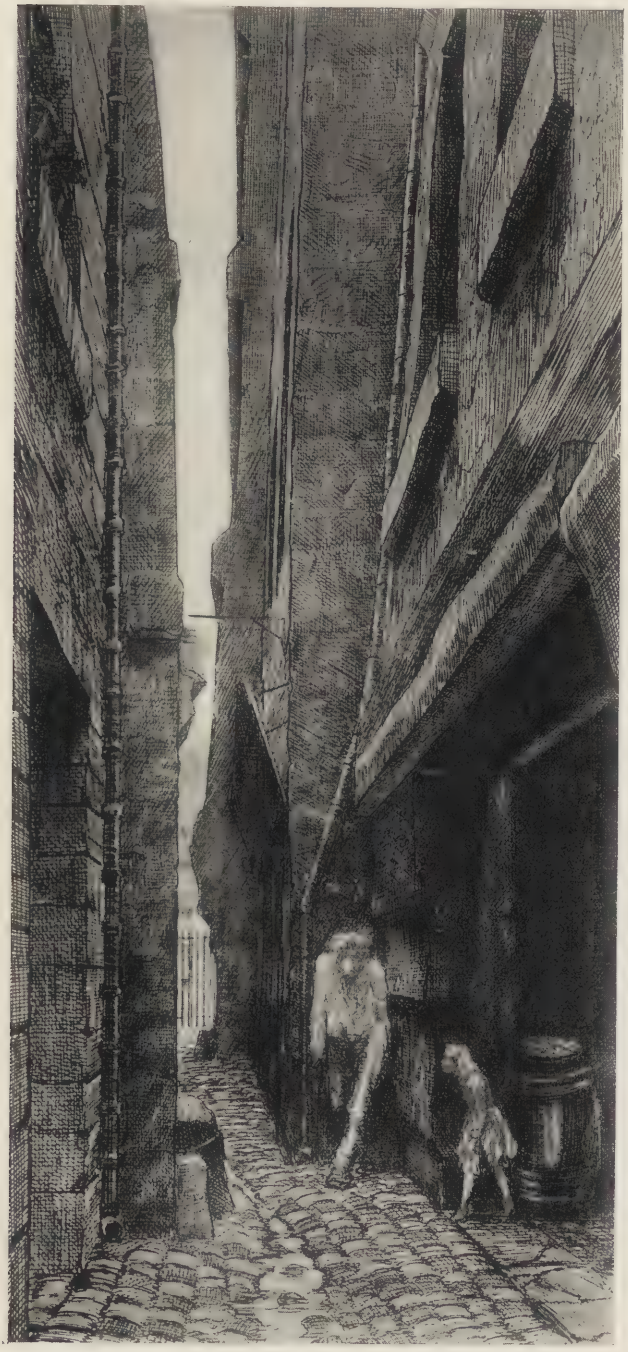
The Boulevard de Sebastopol.

The placing of the great railway stations in a circle about the old center of Paris brought the administration into contact with the problem of providing for them proper avenues of approach. Before the time of Haussmann, a beginning was made with the Gare de l'Est as the starting-point for a great "Boulevard



RUE DE LA TIXERANDERIE IN 1848.
(From Martial.)

du Centre," which should develop the north and south arms of the Grande Croissée; this street, 30 mètres wide, was finished as far the Boulevard de Saint-Denis in 1852, and took the name Boulevard de Strasbourg.



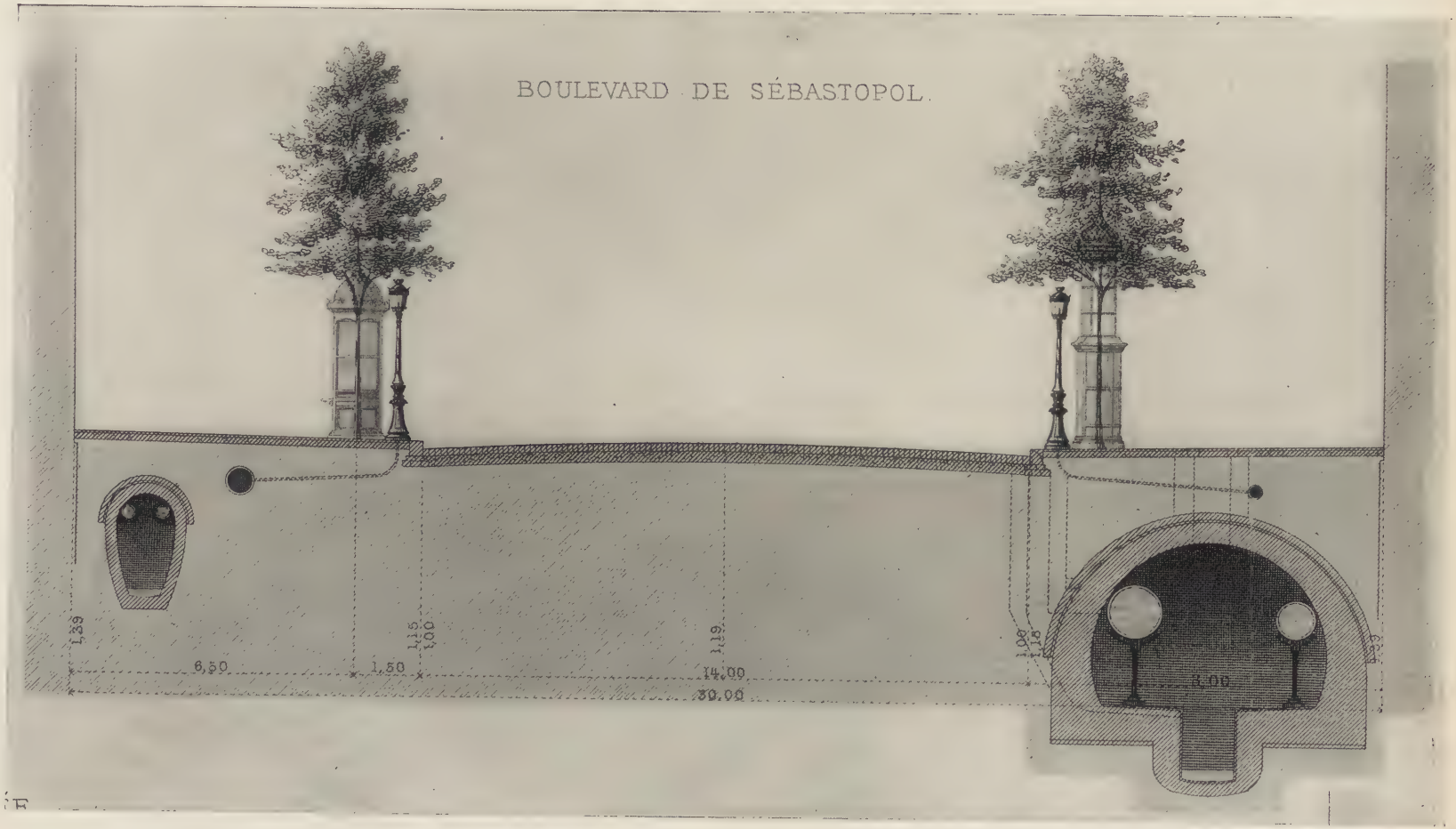
RUE DES CARCAISONS IN 1851.
(From etching by Martial.)

The continuation of the "Boulevard du Centre" to the river was taken up by Haussmann under the provision for the Premier Réseau, and was opened with great éclat April 5, 1858. It was named Boulevard de Sébastopol, from the Crimean victory of September 9, 1855.

This fine street is essentially a continuation of the Boulevard de Strasbourg, constructed by Louis Napoleon before the appointment of Haussmann. It is a true French avenue of the type brought to perfection in the reign of Louis XIV., composed of a roadway, trottoirs and lines of trees, carefully profiled. Haussmann approved it on general principles. It was definitely better to build a new street through the blocks than to widen either of the old streets, the Rue Saint-Denis and the Rue Saint-Martin, with its continuation of the Rue des Arcis. In this way, without disturbance of traffic, three large parallel streets were secured, which have proved none too much for the requirements of the situation. Haussmann was, however, much distressed by a lack of care on the part of the engineers who designed the Boulevard de Strasbourg. A minute deviation at the Gare de l'Est would have brought the axis of the Boulevard du Centre into line with the dome of the Sorbonne, giving vista to that monument. At Haussmann's suggestion the architect Bailly afterwards designed the Tribunal de Commerce in such a manner as to supply this defect.



DUE DE' RIVOLI AND TOUR DE SAINT-JACQUES LA BOUCHERIE, SHOWING HAUSSMANN'S FAVORITE METHOD OF GIVING VISTA TO A MONUMENT.



PROFILE OF THE BOULEVARD DE SEBASTOPOL.



THE COMPLETELY "HAUSSMANNIZED" NEW PLACE SAINT-MICHEL.

The construction of the Boulevard de Sébastopol carried with it that of several important intersecting streets; the Rue Réaumur continued by the Rue du Quatre-Septembre to the Opéra, the Rue de Turbigo from the Church of Saint-Eustache to the future Place de la République, and the Rue Etienne Marcel to the Place des Victoires.

The Boulevard du Palais.

The continuation of the Boulevard du Centre (Strasbourg and Sébastopol) made necessary the replacement of the old Rues de Saint-Barthélemy and de la Barillerie, leading across the island from the Pont au Change to the Pont Saint-Michel, by an avenue of the first class which took the name Boulevard du Palais and became part of the general scheme for the rehabilitation of the Ile de la Cité. To make the Cité again the civic center was fundamental to the entire scheme for the transformation of Paris. The consideration of the great buildings which took the place of the original slums of the island must be postponed to another article, where the entire subject of the Parisian architecture of the Second Empire will be taken up.

The Boulevard Saint-Michel.

Technically, the Premier Réseau stopped with the river. The continuation of the improvements on the south side (Rive Gauche) came under the provision for the Deuxième and Troisième Réseaux, but as the Boulevards Saint-Michel and Saint-Germain are topographically connected with the Grande Croissée, they should be considered here.

The old route from Orléans came to the river through the line of the Rue de Saint-Jacques, where portions of the Roman pavement have been found. As that line was too far eastward for the continuation of the Boulevard du Centre, which took the name Boulevard Saint-Michel, Haussmann used instead the old Rue de la Harpe as far as the old Place Saint-Michel at the Rue Soufflo. From this point to the Carrefour de l'Observatoire, the new street followed the old Rue d'Enfer. In order to clear the Lycée Saint-Louis and the Thermes with the Hôtel Cluny, he was obliged to curve the Boulevard Saint-Michel. He took advantage of this to bring its axis into line with the spire of the Saint-Chapelle.

Boulevard Saint-Germain.

Before Haussmann's appearance in Paris the Emperor had seen the necessity for a large street running east and west on the southern side, and had begun the Rue des Ecoles to do this work. When he had studied this situation, Haussmann saw clearly that this street was badly conceived. It lay upon the northern declivity of the Hill of Saint-Geneviève, began nowhere, led no whither, and had no organic connection with the plan of Paris. He saw that a much broader solution of the problem was required, that the Rive Gauche, as well as the Rive Droite, should have a large connection between the Place de la Bastille and the Place de la Concorde. He conceived the splendid Boulevard Saint-Germain, with its extension by the Pont Sully and the Boulevard Henri IV. This street, finished in 1882, was built under the conditions of the Troisième Réseau, but its intersection with the Boulevard Saint-Michel determined its character and obliges us to consider it as a part of the general scheme for the rectification of the Grande Croissée.

The Boulevard Saint-Germain is a street of the true Haussmann type. Its profile resembles that of an avenue designed in the time of Louis XIV., but it has not the rigidity characteristic of that period. Its direction adapts itself gracefully to the work which it is called upon to do, and to the emplacement of two fine old monuments, the Church of Saint-Germain des Prés and the Hôtel de Cluny. The most characteristic part of the scheme was its completion to the Place de la Bastille by way of the Pont Sully and Boulevard Henri IV.

The Boulevard Henri IV. was so designed that the Colonne de Juillet and the dome of the Panthéon should be in its axis, giving vista to both monuments. To carry out this plan it was necessary to build the Pont Sully diagonally across the river, and to this the Emperor earnestly objected, holding back the entire project for several years. "A Londres,"

he said to Haussmann, "on ne s'occupe que de satisfaire le mieux possible aux besoins de la circulation." "Sire," said Haussmann, "les Parisiens ne sont pas des Anglais; il leur faut davantage."

The result of Haussmann's Premier Réseau and the improvements which grew out of it were universally approved. Even the serious opponents of the Empire, led by Thiers, were obliged to admit the splendid and useful accomplishment. The Deuxième and Troisième Réseaux were not so fortunate.

Edward R. Smith.
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Charcoal Drawing.



A POMPEIIAN MONUMENT.



Wash Drawing from the Cast.

American Schools of Architecture

V.—Washington University, St. Louis

Principles Professed in Teaching Architectural Design

It has been repeatedly stated that to raise the standard of architecture in the United States, architecture should be popularized and the public at large educated so as to be able to appreciate good work. This sounds very well, but how can it be accomplished? It is our opinion that the most expeditious way of attaining this end is, first of all, to educate the architects to so prepare the student of architecture that when he goes out into the world he will be fully equipped to occupy the important position an architect should fill in the community. For it is the architect's business to put men's surroundings in order; to seek and to establish just relations among the objects of men's creation; to introduce harmony of arrangement among them. The need of architectural training is great, as is evident from the fact that a conservative estimate puts the number of architects practising throughout the country at 10,000, the number of students graduated yearly at perhaps 100; so that if we take twenty years as the average useful life of an architect, we have 2,000 trained men, one-fifth of the entire practising force. While no one would contend that all the schooled men do creditable work, nor that all unschooled men do uniformly poor work, it is clear that too large a proportion of those who design buildings to beautify or to mar our cities are men who have had little or no opportunity to gain a liberal education, to learn the theory of architecture and to train systematically the artistic gifts with which nature endowed them.

As soon as the majority of our practising architects are drawn from the trained and cultured class, so soon and no sooner will the standard of executed work be raised. All architects will then have about the same ideals and will refuse to execute the vile ideas of some of their clients. They will no longer fear to lose a commission, being assured that their competing fellow-practitioners will be just as reluctant as they to allow their architectural conscience to be abased by the mere material remuneration. The American architect will become a member of the family council like his European colleague, who, with the family physician and attorney, enjoys the absolute confidence of his client. But to reach this goal we must have more trained men who, with practical experience added to a thorough technical and artistic equipment, will be fully prepared to attack and to solve with equal facility any and all problems, whether simple or complex, that may arise in practice. The architect of training must possess a sound basis of judgment which will enable him authoritatively to advise his client and to divert undigested notions into the proper channels.

But why does the client so often interfere with the architect's work? The American architect's client is too often of that type of American citizen who comes out baldly and frankly with the statement, "I guess I know what I want, and, besides, I am paying for this," or else a person of superficial attainments, a dillettante nature who attempts to plan his own house, subscribes to a half dozen architectural journals, copies the living operates on them while they are under the influence of an anaesthetic, the better it will be for both client and architect, and the more satisfactory the result will be architecturally. This absolute confidence which, fortunately, already exists in many instances, especially among the truly cultured element of society, will become more general as soon as the thoroughly aesthetically and technically trained as well as practically experienced



A FAÇADE IN THE CORINTHIAN ORDER.

room from one, the kitchen from another, a closet from still another, and after concocting a most horrible conglomeration carries his Chinese puzzle to an architect and instructs him to make a few working drawings and to have the design executed.

It seems to us to be most obvious that the sooner the laity, as a whole, will go to their architect with the same confidence they place in their surgeon, who architect will command the respect of the whole community by the superior and authoritative knowledge of his profession, and will elicit the admiration of the public by the skill and ingenuity he displays in his designs. His work, in turn, will educate the public, and will awaken a taste for the beautiful.

In art the balance hangs true between demand and supply. When a trivial and meretricious taste and a false standard

of criticism prevails in general society, the art of the day will reflect it and be itself false and bad. If the reasonable basis on which good architecture is founded were better understood by those who are lovers of the art, but have had no special training in its principles, we



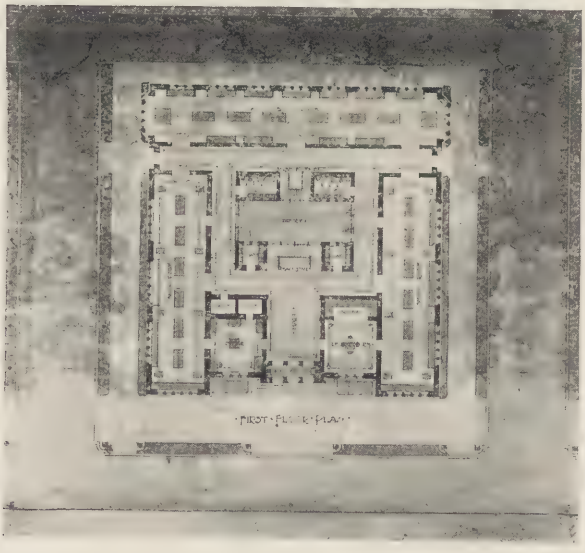
APPLICATION OF THE ORDERS TO TREATMENT OF A PUBILC BUILDING.

venture to say they would derive a new pleasure from it, which would more than double the old. The vulgar understanding of design, both by the uninitiated layman as by some of the untrained architects, means the consideration of a façade alone, an elevation covered with ornament, the more the merrier, "gingerbread," I believe, it is called. Nothing could be more absurd than this, and the person who expresses any such idea only proves his gross ignorance. Architecture is often regarded as one of the arts of picture-making, whereas to the designer the presentation of the design pictorially is but incidental. The more enlightened of the laity confess that architecture is a mystery to them. It is our duty to unravel this mystery and to make an architectural student of the young layman who enters our college drafting-room, and to prepare him for the long and undulating road of study which he must travel to become a consummate architect. To very many people at the present day the study of architecture seems to consist in making acquaintance with its outward phenomena: in learning to distinguish style, and to be able to tell at a glance to which period and date each example should be assigned. It is not, however, in this way that architecture, either past or present, can really be understood. Knowledge such as this will never help to the proper use of the art, nor does it lead to a correct conception of the architecture of the past, for architecture is something more than archaeology. Archaeology is not architecture, and it is the spirit rather than the letter of the great styles of the past that are of use to us.

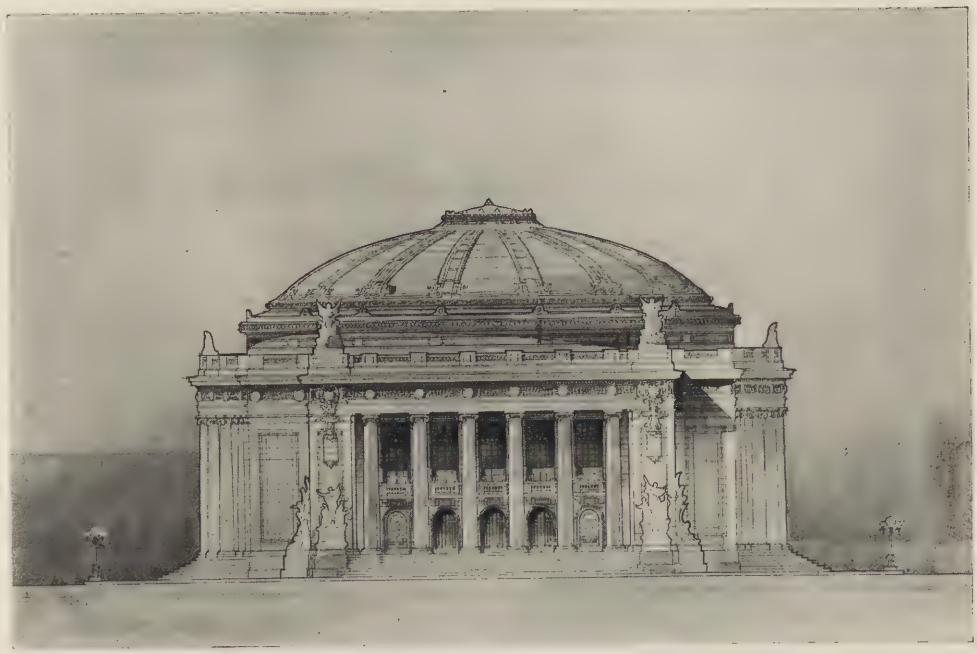
Those of us who are teaching architectural design know what a delicate subject it is, and that to teach it becomes a matter so indefinite and intangible as to defy the establisment of set rules and regulations, to be transmitted like so many inflexible laws. An analysis of composition must needs be negative



AN ARTS AND CRAFTS ESTABLISHMENT—ELEVATION.



AN ARTS AND CRAFTS ESTABLISHMENT—PLAN.



AN ODEON—ELEVATION.



AN ODEON—PLAN.

rather than positive. This results from the fact that while a production is not necessarily good, because it complies with the laws of composition, it is surely faulty if it contradicts them. Although it is possible to analyze and classify the principles which govern design, we do not claim nor attempt to make masters by teaching rules; and design, in its more delicate discriminations, must remain a matter of talent and temperament. Architectural design is the art of so combining the different parts of a structure as to produce a harmonious whole. This is expressed on paper by the plans, sections and elevations. The various drawings, put together, form the design, and if they do not logically and frankly express and reciprocally explain each other, the design is not only incomplete but not good. A good design must first of all solve the specific problem in regard to its practical requirements, meet the prescribed needs of usefulness, must be adapted to the climate, the nature of the ground, the points of compass, must be convenient, economical and beautiful. Architecture is the most reasonable and logical of the fine arts. In its every step, its every development, its every transition from style to style, we may trace more or less distinctly a reason in the influence exerted by some corresponding change in the men or the conditions of the day. It is by this that art lives. A style is only a living style so long as it gives expression to the feeling of the time, and the outward form it takes results from its more or less complete expression of this feeling. To understand the expression you must know what it is trying to express, and the transition from one style to another will be unintelligible unless the corresponding change in men and manners, circumstances and conditions of means and opportunity are



A FRATERNITY MEETING ROOM.

also understood and appreciated. Those outward forms by which we know each style, and by which we recognize how it differs from any other, are not the creation of artistic imagination solely, still less of fancy or caprice in the architect, but are, in the main, the outcome of suggestions of economy, or of limitation of means and material, or of convenience and of adaptation to new needs and new social habits.

In order to meet all of these various conditions, which are rarely, if ever, the same in two cases, every design must be created and then developed systematically, both scientifically and artistically. The solution of this great diversity of conditions requires an imaginative mind rather than a mathematical one, and the student who is ingenious and of quick judgment will be sooner imbued with the proper spirit of architectural design than his fellow-student, who has not the courage, the energy and fancy which go to make initiative. Naturally, the beginner cannot be left to his own resources, and to prepare him for original work in the junior and senior years, we believe it to be just as essential for the student in design to be taught an architectural alphabet, grammar and vocabulary as it is for the poet or writer of prose to become familiar with the elements of language. The beginner is taught the classic orders, not alone so that he may familiarize himself with the elements of Greek and Roman architecture, and in order to learn the names of the moldings so that he can speak intelligently of them, but also to train his eye to proportion. As soon as he has learned to draw the orders, he is given an opportunity to practise composition. The order problems issued bi-monthly by the Society of Beaux Arts Architects are most excellent for this purpose. They are, as a rule, simple subjects, framed and arranged with their details to make a frontispiece. These problems are the student's first serious studies in composition.

Before the plan problems are attacked we find it important for the student to acquire a vocabulary of the best examples of architectural elements, such as doors, windows, cornices, balusters, etc., and the principal forms and kinds of ornament in the various styles, and to use them under the direction of his instructor in his first attempts at composition. There are many ways of using the examples of those who have gone before. Used in one way they may help us to achieve as much as our forebears, and possibly more. Used in another they may betray us to our ruin. And if, situated as we are, it is inevitable that we should look backwards to the practice of by-gone styles, it is important that we draw from them the right lessons, and be not mislead into mistaking what is only an external form for a vital principle. It is mainly the latter that is of value to us for modern use. In this way the foundation for design is laid, and the taste of the student is guided in Washington University. As a student advances he is expected more and more to use his own imagination, and to invest all his work with the stamp of personality and individuality.

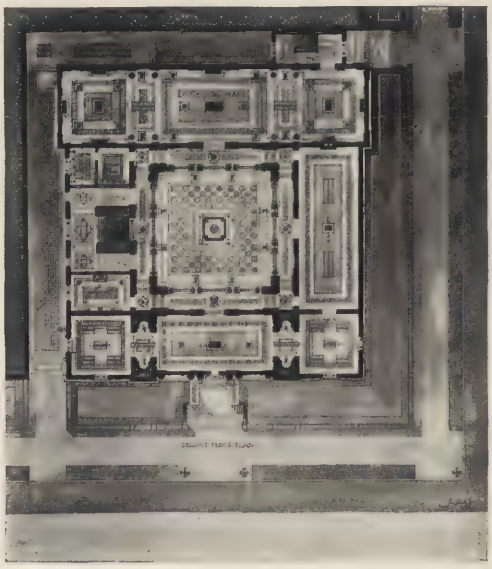
Besides all the necessary subsidiary branches, a thorough knowledge of the history of architecture and ornament is deemed most essential as an auxiliary study for design, the elements of which are to be utilized only as a basis of departure and as far as practicable only. Never, on any account, are these to be used to the detriment of individual and original work. We believe that the designer who knows what has been done in previous ages will know how far to depart from the beaten track in his own work, and will be by such knowledge enabled to remain within the bounds of good taste. To begin with the ensemble and work down to the detail, both in plan and in elevation, is the general course pursued in the study of design at Washington University. The student is taught to interpret a programme by picking out the most important features as to arrangement in plan, and to group the less important parts of the building or buildings around these, then to express these main features in elevation, giving each its relative value. When the ornament is applied, whether it be plastic or flat, the student is again advised to study



AN ART CLUB—ELEVATION.

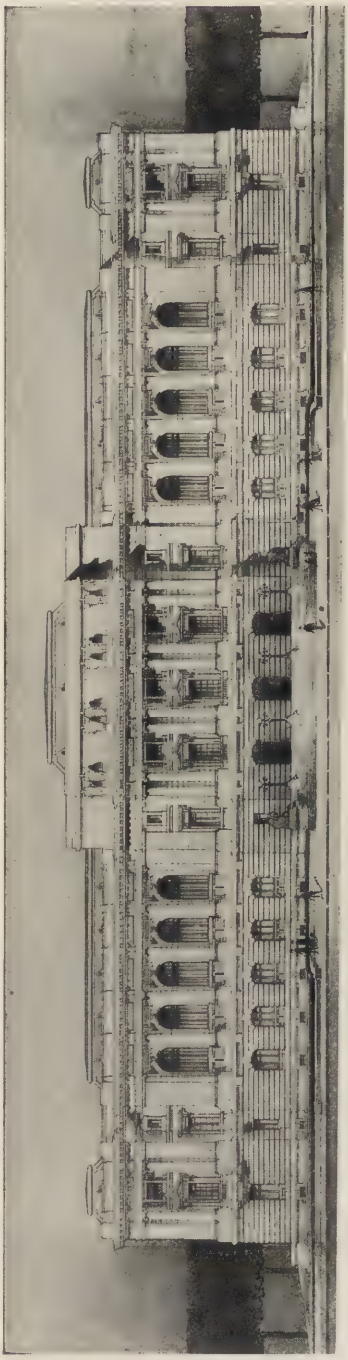


FIRST FLOOR PLAN.

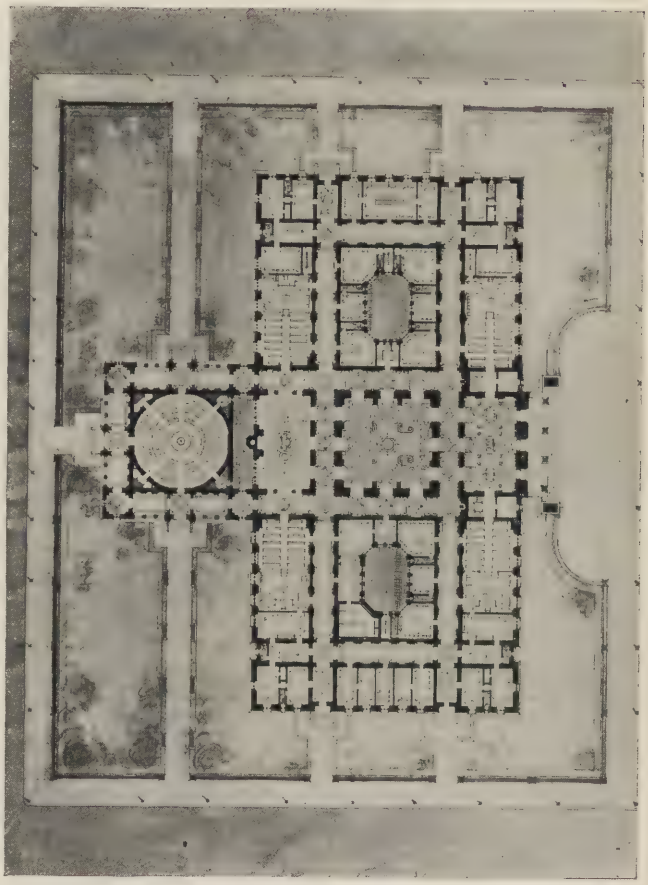


SECOND FLOOR PLAN.

AN ART CLUB.



A COURT HOUSE FOR ST. LOUIS—ELEVATION.



A COURT HOUSE FOR ST. LOUIS.
Graduation Thesis.

the mass or outline before developing the detail. The student is taught, at Washington University, to construct his design on the principal axes which form the backbone of the composition, to constantly bear in mind the structural elements which are inseparably connected with the design, to consider the character and function of all masing. No theories should be advanced and professed that cannot be of tangible value in practice, and the student's attention should be called to the uselessness and absurdity of any such theories.

To sum it all up, the student is urged to reason, reason about the character of the building, reason about the choice of a certain scheme of composition, reason in the choice of motives, never to do anything without having a reason for it, to be sincere, truthful, frank and simple in his designs, always expressing that for which it stands besides showing the individuality of its author. If the student follows these maxims he will learn to create a live art and one that depends for its vitality upon its accommodation to the thought and feeling of the day.

Such a conception of the character and scope of the training in design required of the prospective architect, underlies the scheme of the course in architectural design at Washington University. The designs here illustrated show some phases of the work of its students. There is but one word to be said in conclusion, in regard to the existing four-year course in architecture; namely, that it is insufficient, even for the most talented, especially since the first of these four years is spent in college studies instead of being devoted to architectural pursuits pure and simple. We, therefore, advocate the separation of the School of Architecture from the college, and, on the other hand, recommend the merit system in which the advancement of the student is based entirely on his own progress as evinced by the quality of his work.

Louis C. Spiering, Architect.
Instructor in Architectural Design, Washington University, St. Louis.



Water Color Drawing.



THE HOUSE OF MR. W. B. THOMAS.
Pride's Crossing, Mass.

Some Houses on the North Shore of Massachusetts

When the story of the development of social intercourse in America comes to be written the various colonies which have during the past generation been formed in attractive country neighborhoods will play an important part in the tale. The majority of Americans who have any leisure for genuine social intercourse, all undoubtedly find their opportunities for this sort of experience chiefly in the summer months. People of similar tastes and habits, who live during the winter in very different parts of the country, are drawn together for their summer vacations in some congenial place, and there they live the lives and build the houses which they prefer. The whole Atlantic coast, from Maine to the southern part of New Jersey, is lined with such settlements, and there are almost as many more in the hills and mountains of the interior. Some of them, like Newport, are of long-standing. Others are of comparatively recent origin. Some are frequented exclusively by very wealthy people; but no less significant, from the social standpoint, are the groups of wealthy people who have congregated at Lyme, Conn., Cornish, New Hampshire, or at Siasconset, in Massachusetts. These settlements are a spontaneous and genuine expression of the different phases of American social ideals; and they are making a valuable contribution to the social intercourse of Americans because they bring together people who, in winter, live in very different ways and in different places. They are the beginning of an American social life which is something more than local, and which may become national.

The vast majority of the houses which have been built in these settlements are of no architectural interest, even when built for rich people. They usually consist merely of wooden villas, which vary one from another rather in size and in certain accidents of appearance than



THE HOUSE OF MR. J. W. WILLIAMS. J. Wm. Beal, Architect.

Beach Bluff, Mass.



THE HOUSE OF MR. J. W. WILLIAMS.—HALL.



THE HOUSE OF MR. J. W. WILLIAMS.—DINING ROOM.

Beach Bluff, Mass. J. Wm. Beal, Architect.



THE HOUSE OF MR. WILLIAM H. DEWART.
Dwight & Chandler, Architects; Howland S. Chandler, successor.
Magnolia, Mass.



THE HOUSE OF MR. MYRON C. WICK.
Dwight & Chandler, Architects; Howland S. Chandler, successor.
Manchester, Mass.



THE HOUSE OF MR. MYRON C. WICK.—LIVING ROOM.



THE HOUSE OF MR. MYRON C. WICK.—LIVING ROOM.

Manchester, Mass. Dwight & Chandler, Architects; Howland S. Chandler, successor.

in essential character, Even in Newport the small land areas on which the houses are built have prevented the construction of any more imposing architectural type than the palatial villa, occupying a bare suburban lot. The best American domestic architecture is usually found in detached country houses, which are intended both for winter and summer residence, and which are built upon an estate of several hundred acres. But while the villas and cottages which line the Atlantic seacoast are of meagre architectural merit, they are often so typical of the popular standards of domestic comfort and decorative taste that they are very interesting as an expression of these standards. Their owners usually employ either local builders or else inferior architects; and the result is that the owner gets what he wants, so far as he knows what it is. Of course, very often he does not know what he wants, particularly so far as the interior of his house is concerned; in which case he usually falls into the hands of some more or less merciful interior decorator. But when the owner, the owner's wife, or the professional decorator is responsible, the result is much the same. An attempt usually is to do something handsome and swell, something which resembles the real thing; and the attempt almost always fails because of certain fundamental faults, both in the plan of the rooms and in the methods of carrying out the scheme. But these houses are none the less frequently very interesting for the obvious mixture which they show of good ideas and bad taste, of excellent models and inferior execution.

One of the most important of these settlements on the coast is that which has congregated on the so-called north shore—that is, on the small strip of the Massachusetts coast, which stretches from Salem to Cape Ann. The north shore, except in the immediate vicinity of Gloucester, was originally settled, many years ago, by well-to-do families from Boston, and many such families still keep their places at Beverley and Manchester. But of late years many wealthy people from the Middle West have bought places either on or near the coast; and the social character of the settlement has entirely changed. It has become a sort of a Newport for the Middle West; but it is a Newport with a difference. Whatever may be thought of society at Newport, it comes nearer to being the real thing, in the European sense, than any other society in this country; and whatever may be thought of the permanent architectural value of palatial Newport villas on suburban lots, they at least constitute an important phase of the history of American residential design. On the other hand, the Middle Western settlement on the north shore has not as yet established itself as in any sense socially important, and the houses which it occupies show the influence of this inferior social standing. Although owned often by very rich people, they are obviously tentative and impermanent, as if their owners were not particularly well established, while frequently they are, at least in their interiors, decidedly pretentious in effect. They sometimes remind one, in their exteriors, of the big wooden villas which were erected at Newport and elsewhere on the coast about 1880, while their interiors, on the contrary, usually show the influence of the most showy modern decorative standards. Some of them are indeed old houses, which have merely been increased in size and made resplendent within; but whatever their origin, they represent socially and architecturally a not very serious attempt to imitate something better. They include all the scenic surroundings of contemporary American opulence—the elaborate gardens, the "period" rooms, the gorgeous furnishings—but whereas under other surroundings these accessories have stood for a certain amount of genuine aesthetic, domestic and social aspiration, they frequently give evidence in this case merely of an ambition to be as much as possible in the fashion.

These remarks must, of course, be taken to apply only in a general sense. They are a fair description of the new society and the new architecture of the north shore; but of course a settlement, which is so numerous and includes so



THE HOUSE OF MR. GARDNER M. LANE.

Manchester, Mass.

Richard Gildersleeve, Architect.



THE HOUSE OF MR. GARDNER M. LANE.—CARRIAGE PORCH.
Manchester, Mass.



THE HOUSE OF MR. GARDNER M. LANE.—VIEW FROM THE VERANDA.
Manchester, Mass.



Manchester, Mass. THE VERANDA OF MR. LANE'S HOUSE.
Richard Gildersleeve, Architect.



THE HOUSE OF MR. GARDNER M. LANE.—DINING ROOM.



THE HOUSE OF MR. GARDNER M. LANE.—LIVING ROOM.

Manchester, Mass. Richard Gildersleeve, Architect.

many different kinds of people and houses, will offer many exceptions. Our illustrations, for instance, show three houses which, both inside and out, are wholly unpretentious, and which belong merely to the ordinary type of suburban villa. The residence of Mr. J. W. Williams, at Beach Bluff, is an unusually large shingled dwelling, such as were erected more frequently twenty-five years ago than to-day; and it is not, at any rate, wholly unobjectionable. It preserves the same unpretentious character in its interior as in its exterior; but the interior is distinctively more objectionable. The hallway, for instance, is an overpowering illustration of what may be called flowering suburban Colonial, while in the dining-room a design, which might have been interesting, is spoiled by an excessive arborescence. The Dewart house, at Magnolia, is a more successful example of the same sort of thing; and the impression it gives of being a little less suburban is doubtless due to the better distribution and larger growth of the shrubbery. The best of the three is, however, the Wick house, at Manchester. Just as on the outside, this house gives more the impression of a country residence, and less that of a suburban cottage; so, also, the interior exhibits, if not an impeccable taste in furniture, at least a preference for solid, quiet wall spaces, and the consistency of effect which can be obtained by such means. In this house a pleasant sense of room and comfort has been obtained at a comparatively small expenditure for "finish"; and it belongs to a type which is, unfortunately, less popular in the East than it is in the West.

A very attractive residence fronting upon the shore at Manchester is that of Mr. Gardner M. Lane. One would like, indeed, to see a house of this size, and this type of design, built of material which is more substantial and appropriate than wood; but the very clapboards help to give it an agreeable old-fashioned effect, suggestive of some of the later Colonial houses of New England; and this effect is very much enhanced by excellent planting. It would not be easy to find a better example of the proper use of trees and shrubbery in the immediate vicinity of a house. Every tree which has been planted or left standing enhances the architectural value of the building, while at the same time doing nothing to diminish the desirable sunlight. Nothing could be less pretentious than this big white villa, with its large lawn, its lovely gardens and its water view. It creates distinctly the impression of being inhabited by gentlefolk, who really enjoy their country place, and take most admirable care of it, while mingled with this impression of good form and conscientious housekeeping is a slight but not unpleasant sense of primness, as if its inhabitants were not quite as much at home in their own dwelling as they should be. The house inside and out, that is, gives more the sense of being scrupulously cared for than of being easily lived in; and this prim tidiness is perhaps an inseparable part of its old-fashioned charm.

The reproach of employing unworthy materials cannot be levelled against Mr. J. W. Mitchell's house at Magnolia. In this instance we return to the less formal and pretentious class of shingled dwelling. No doubt the Mitchell residence tends to be an excessively big example of the class; but its lack of architectural presumption disarms criticism. So far as the exterior is concerned, it is only necessary to call attention to the effective distribution of foliage around the house. Whatever else these north shore dwellings may be, they are not bleak and bare, like so many dwellings are on the coast. Almost every house has its proper setting of trees; and almost every house is planted round about with effective masses of shrubbery. This planting looks more like the work of professional gardeners than of landscape architects, probably so-called; but given the character of the houses and the lay-out of the grounds, it serves its purpose admirably. Unfortunately, however, one cannot say as much that is pleasant about the interior of Mr. Mitchell's house as about the exterior. The dining-room is elaborately designed, while the drawing-room is simply an excruciating example of bad taste. Let us refrain from further comment, lest our distaste master our discretion.



THE HOUSE OF MR. J. W. MITCHELL.

Magnolia, Mass. Lewis H. Bacon, Architect.



THE HOUSE OF MR. J. W. MITCHELL.

Magnolia, Mass. Lewis H. Bacon, Architect.



THE HOUSE OF MR. J. W. MITCHELL.—DRAWING ROOM.



THE HOUSE OF MR. J. W. MITCHELL.—DINING ROOM.

Magnolia, Mass. Lewis H. Bacon, Architect.

The residence of Mr. W. B. Thomas, at Pride's Crossing, is the largest and most elaborate contained in our list of illustrations; and it produces on the discriminating observer a somewhat mixed impression. It is built of granite up to the level of the second story, while there above it drops to the architectural level of a shingled villa. In the same way the house is extravagantly broken and picturesque in design, while the garden is a not very successful example of excessive formality. It suggests, that is, in its appearance, a mixture of elements, which, while not necessarily contradictory, are at least hard to combine; and in the present instance the combination merely leaves the critic somewhat uninterested. It is not wholly uneffective. Neither is it as amusing as a combination of unconventional elements should be. It remains, that is, very conventional, in spite of its accidental unconventionalities; and this in spite of many minor merits. Here, again, the planting has been well managed, and the natural advantages of the location are such that at the end of ten years, when the vines and the shrubbery have attained a natural growth, the place will doubtless have much the effect of certain English houses —the effect, that is, of having grown to be interesting, in spite of a want of beauty and propriety in its design. No improvement with age can quite overcome the original incompatibility between the scale of the place and its style. It must always remain an overgrown villa. It can never obtain the dignity of a mansion or the look of a permanent residence, just as the juxtaposition of a formal balustrade and a lawn decorated with boulders must always remain offensive. But little by little the place will become mellower and more congenial in appearance until the architectural sins associated with its birth can be, if not forgotten, almost forgiven.



THE HOUSE OF MR. J. W. MITCHELL.—LIBRARY.

Magnolia, Mass. Lewis H. Bacon, Architect.



THE HOUSE OF MR. W. B. THOMAS—VIEW OF FRONT FROM CARRIAGE DRIVE.
Arthur H. Vinal, Architect.
Pride's Crossing, Mass.



THE HOUSE OF MR. W. B. THOMAS.—VERANDA AND GARDEN.



THE GARDEN OF MR. W. B. THOMAS.

Pride's Crossing, Mass. Arthur H. Vinal, Architect.



THE HOUSE OF MR. W. B. THOMAS—DRAWING ROOM. Arthur H. Vinal, Architect.

Pride's Crossing, Mass.



ITALIAN WELL CURB ON THE ESTATE OF POSTMASTER-GENERAL GEO. VON L. MEYER.

Brookline, Mass.



FOUNTAIN IN MR. JOHN BURNHAM'S GARDEN.
Wenham, Mass.

NOTES & COMMENTS

ART COMMISSION AMENDMENTS

An important bit of New York State legislation, that seems to have been commonly overlooked, is a bill which was signed by Governor Hughes in mid-summer, amending that part of the New York City charter which refers to the municipal art commission. The general importance of the amendment is that this part of the charter has been taken as a model by nearly all the municipalities which have since established art commissions. Heretofore, by charter requirement, only designs for public buildings costing over $1,000,000 had to be approved by the commission. Now designs for all public structures costing over $200,000 must receive the commission's approval. A further amendment is that the president of the Metropolitan Museum of Art, the president of the New York Public Library, and the president of the Brooklyn Institute—all of whom have been ex-officio members of the commission—may appoint trustees of their institutions to act in their stead. This is a sensible provision. Apropos of this subject, it is notable that the Mayor of Baltimore—where there is already an art commission modeled after New York's—has followed the further example of New York in asking, as did Mayor McClellan, for an architectural advisor. But the Baltimore idea was a commission of architects to serve without pay.

OPPOSING A STATUE

The City Parks Association of Philadelphia, which is nearly always doing something interesting, lately took an instructive position in regard to a suggested bit of city embellishment. It was proposed by the heirs of a certain estate to erect a statue of Lafayette in front of Independence Hall. The statue, it may be assumed, was to be artistically worthy of its subject and site. The City Parks Association came out in flat opposition. The only statue now in Independence Square is one of George Washington. There is a drinking fountain; but there are no other statues, and this condition, the association maintained, was the desirable one. Once the bars were let down, it foresaw that this most central square, and probably the most widely visited and famous in the United States, would become a "cemetery, marble-yard or bronze factory." This was strong speech, but it seemed necessary, for, the report went on, "The very estate that now seeks to erect a statue to Lafayette is directed by the testator to follow this statue with no less than eight others, viz.: Montgomery, Steuben, Pulaski, Wayne, Greene, Sumter, Morgan and Jones." In too many cases the underlying purpose of such civic gifts is to link conspicuously the name of the donor with the fame of a great man. Thus is it good to find one of the strongest and most energetic of the improvement societies taking a stand in the matter, daring to discriminate, and forming its judgment not only on artistic grounds as respects the proffered gift itself but on grounds of appropriateness and influence. It is not a gracious rôle, but it is one of great possible value to the community.

NEW ENGLAND TAKES UP CITY PLANNING

The matter of comprehensive planning for cities and towns is getting beyond the stage at which justice can be done to it by the discussion of isolated examples. This is the more remarkable since the passing of many months during which it has been difficult for cities to raise money by bond issues, a condition which might have been expected effectually to check the movement. That is has not done so, may be variously interpreted as due to a recognition of the fact that the mere having of a plan to grow to does not necessarily commit the municipality to any large expenses until it is ready for them, or to a belief that a scientific plan of convenient and artistic development is as necessary to the

modern city as are sewers, pavements, or any of the other accepted urban requirements. In the development of this movement in the last few months, two interesting phenomena have appeared. One is the prominence which New England, after considerable deliberation, has now taken in the matter; the other is the marked spread of the movement to include the smaller cities and towns. These phenomena, in themselves and in their promise, are worth note.

The spread of the movement to New England has been marked by the developments in Springfield, Mass., which have had description here from time to time; by the authorization of a city plan commission for Hartford; by the creation of a metropolitan park commission for Providence and the agitation there, largely led by the architects, for an expert plan for Exchange Place; by the appointment of the City Improvement Commission for Boston—the personnel of which has been strengthened by the choice of Sylvester Baxter as Secretary; by the negotiations in New Haven for an expert commission; and by the engagement of a landscape architect, on the mayor's intiative, to make plans for Holyoke. Very likely there are other equally significant instances; but these are sufficient to prove how thoroughly New England is now going into the matter. That the movement is thus endorsed there, is of more than local moment. Throughout the United States, and especially in the West, eyes are turned lovingly to New England, and while the rest of the country never lacks courage to act for itself, once the impulse is given, yet there are still many who have yet to become interested in the replanning of cities. The interest of these could be hardly enlisted more certainly than by learning of the reports, and the results thereof, in the old home.

RE-PLANNING TOWNS

The spread to the smaller cities of the movement for town replanning could be evidenced by a good many instances. Holyoke, to which reference is made in the note on New England's activity, is one such instance. A single specialist in this work, whose engagements heretofore have come from large cities, has found his time fully employed in recent months for towns approximating 25,000 population—as Watertown, N. Y., Ogdensburg, N. Y., Jamestown, N. Y., and Dubuque, Iowa. And he is reported by a newspaper as saying that he found a special pleasure in planning for these towns to which nature comes so close and which, if of slenderer resources, had so little to undo as compared to cities, and in which effects could be secured at so slight a cost. In his opinion these cities that are yet in the making, while offering slight opportunity for the spectacular and immediately striking, are really the best field to work in from a civic improvement standpoint. This makes interesting contribution to the discussion, for certainly, as respects the general movement, it means much that towns of this size, which are so numerous as compared to the big cities, and which heretofore have thought such plans beyond their little means, should find that the expense is proportioned to their resources and the aspiration as vigorous with them as in the cities. The circumstance is full of promise, indeed.

ARCHITECTURE AND THE SMOKE NUISANCE

It is, happily, not unusual to find a Chamber of Commerce taking vigorous steps to suppress, for the sake of the public welfare, that smoke nusiance for which its own members are largely responsible. In a report, which has been recently issued in pamphlet form for wide distribution by the smoke committee of the Cleveland Chamber of Commerce, it is, however, of interest to discover that the first argument presented for the suppression of dense smoke is based, not on economics, but on the fact that such smoke is "perhaps the greatest hindrance to the highest development of civic beauty." It means a good deal—and it is something new in our progress as a people—that the representatives of the business community of one of the busiest cities should make that the first ground of their appeal. The injurious effect of smoke, the argument specifies, "is shown in all plant life. . . . The growth of green conifers is almost impossible, and only hardy and smooth-leaved trees are comparatively unaffected. . . . To a considerable extent the architectural effects of our buildings are destroyed by damage from this source. Buildings of almost every material are in a few years brought to a common level—a grimy hue which robs them of their distinction. The artistic beauty of the group plan must be in large part lost unless this nuisance is mitigated before its completion." The argument points out that the special process by which alone stone buildings can be restored to their original color is often

harmful to the surface and durability of the stone, that painted buildings soon lose their color, and that it becomes impossible to use the lighter and more cheerful colors without constant and expensive renewal. The whole pamphlet, in which these arguments are followed by many others, and the various methods of dealing with the smoke evil are intelligibly described, is most interesting and valuable. It closes with a list of recommendations of which perhaps the most novel are that the city council "require the posting in all boiler rooms of a set of rules for the proper handling of the heating plant, that the City Department of Smoke Prevention establish an information bureau, and that "the Chamber of Commerce support the Department in the change of policy involved in a prosecution of habitual violators of the smoke ordinance." Architecture has had to suffer many rebuffs in its contact with the business community, but here is a bit of encouragement that is very significant.

CURBING THE BILL-BOARDS

The billboard evil, which is exceptionally serious in Cincinnati owing to the conspicuousness of the sites offered by the city's many steep and unbuilt uphill sides, has been admirably tackled in a report submitted by a committee of the Business Men's Club. The several recommendations of the report may be summarized as follows: A campaign of education, in which other Ohio cities are invited to participate; the preparation of a list of those who advertise on the local billboards, and the giving of this list to persons who are willing to write to the firms named a request not to use such advertising; an investigation to determine what billboards have been erected without the consent of the land owner or in violation of existing law; an appeal to real estate owners to refuse to give permission for such use of their land; an exhibition of artistic posters, that those who insist upon using this class of advertising may be educated to demand only the best; and that there be effort to obtain State legislation to limit the size of billboards and to tax them. On the latter point, the report says: "As a minimum guess, there are about 3,000,000 square feet of sign boards in Cincinnati, which, at the rate of 12 cents per square foot per annum (as was proposed by the New York State bill) would yield a revenue of $360,000." If forty per cent. of this went to the State, there would be left for the city, the report points out, $216,000. This, "capitalized, would be three per cent. on $7,200,000, which applied to the park fund, would be of substantial benefit." In Los Angeles a billboard tax is now bringing in over $50,000 a year to the city. Finally, the committee had fifty photographs of unsightly boards taken, printed on cards, and mailed to prominent firms and individuals. The replies were such that the committee opened a Roll of Honor, containing the names of the advertisers who, declaring that such advertising is not essential to their sucess and that they recognize its detraction to the city's appearance, agreed, out of civic pride, not to continue it after the expiration of their contracts. This seems to have been a sane and effective campaign.

ANOTHER IDEA FOR PUBLIC SCHOOLS

Reports have been current during the last few months that Boston, or a certain number of Bostonians, had had up for discussion a project for putting public schools in the parks. This seemed a strange idea to come from Boston, where the park system has had its most complete measure of development in the United States, for it appears full of menace—immediate and prospective—to the parks. At the same time it was an interesting suggestion to architects. The planning of public schools is just becoming, within certain rather indefinite limits, to be a sort of science, and here is an idea that would at once revolutionize the whole theory of their construction. Thus is it interesting to find, in a recent "Outlook," a characteristically clear setting forth of the ideal by President Eliot, of Harvard. It is notable first that the project is not at all to put the schools "in" the parks, as the newspapers have said, but on the borders of the parks; and secondly that the suggestion, which was made to the Boston School Committee, came from J. Randolph Coolidge, an architect who would not be likely to forget the claims of city beauty. President Eliot, noting that well-to-do people have found it so "difficult to bring up their children satisfactorily in closely built towns and cities" that academic and day schools situated in the country are receiving an increasing patronage, remarks that the children of the slums have an even greater need of fresh air, light, and room for play. Mr. Coolidge's suggestion therefore applies primarily to the grammar schoolhouses for the children of congested districts, and it involves the trans-

portation of the children at public expense to school and back five days a week. It also involves supervision of the children's play and study periods, for, as in the case of the private schools, the pupils would remain all day. It involves feeding them; but that would not necessarily mean added expense. Food brought from home could be warmed and other food sold at cost over the counter. As to the two items of expense, the first would be slight if, as is suggested, cars could be used running in the opposite direction from that of the greatest traffic during the busiest hours. As to the second, it would be at least partially met, as would the first, "by the interest on the difference in cost between a school house site in the heart of the city and a site taken on the comparatively cheap land of the suburb adjoining a large country park." Figuring 40,000 square feet as the least suitable area for a school house to accommodate 1,000 children, President Eliot notes that in Boston the site might easily cost $250,000, whereas the same area opposite one of the large parks might be procured for $50,000. The park sites would also have the advantage of being permanent. "In the closely built parts of a city the shiftings of population not infrequently make it necessary to sell an old site and procure at great cost a new one." The plan is applicable only to well children, not less than ten years of age, who do not have to work for their families in the afternoon. Thus there would still be need of some city schools in poor districts. Provision would also need to be made for games and exercise in stormy weather. But the proposal, as President Eliot says, "is certainly very attractive to the humanitarian, the sanitarian, and the economist"—as it is also to the architect; and an advantage of the plan is that it can be tried with one schoolhouse at a time.

ARTISTIC ILLUMINATION

In Mr. Belasco's new theatre, the Stuyvesant, in West Forty-fourth Street, New York, there is to be seen a very pleasing treatment of auditorium illumination. It would be difficult indeed to find a more suitably and artistically lighted auditorium than that of the Stuyvesant. The effect is accomplished by a number of ceiling lights, which shed their radiance through colored globes of many hues. The effect, it is only fair to say, is due quite as much to the general decorative treatment of the auditorium as to the light giving vehicle. At any rate it is a rare instance of artistic theatre illumination, which cannot fail to attract notice to this very difficult branch of interior decoration.

ADVERTISING AS AN ART

At the recent electrical show in Madison Square Garden, New York, there was noticeable a decidedly discordant note amongst the latest wonders in electricity. It was the utter failure of the participants to realize the artistic possibilities of the situation by displaying their wares in an attractive manner. With, perhaps, a single exception the exhibits, interesting as they could not fail to be, were very little more than indifferently dressed shop windows. The exception was a firm that conceived the idea of displaying its specialties by showing them in their application to the needs in the home. This firm placed the devices to which it desired to call special attention, in attractively furnished rooms. The popularity of the exhibit amply testified to the value of artistic advertising, the possibilities of which are yet to be realized by the American business man.

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THE ARCHITECTURAL RECORD

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Some Recent Work of Mr. Howard Shaw

Without doubt the most encouraging aspect of contemporary American architecture is the constant improvement which is taking place in the design of country houses. One may or may not believe that a similar improvement can be traced in the design of skyscrapers and factories, or in the design of public buildings; but no one familiar with the history of domestic architecture in the United States during the last generation can question the establishment of a much higher standard in the making of our country houses. Early errors are being abandoned. Early deficiencies are being filled in. Early excesses are being checked. The improvement implies not merely greater competence and wider experience on the part of the architect, but it implies also that he occupies a position of greater authority in respect to his clients, and that the clients themselves are less under the influence of erroneous ideas and false standards of living. The period of "palatial" city and country houses has passed, and rich men are becoming content with a class of dwelling which is better adapted to be the residence of a citizen in a democratic state. The period, both of indiscriminate and slavish imitation, has also passed, and has left behind it only the wholesome desire to embody in American domestic architecture the general tradition of good form, bequeathed to us by our European predecessors. And best of all, one can remark the gradual formation of a national tradition, which is profoundly influenced by local conditions, while by no means divorced from a necessary and fruitful debt to the better domestic architecture of the past.

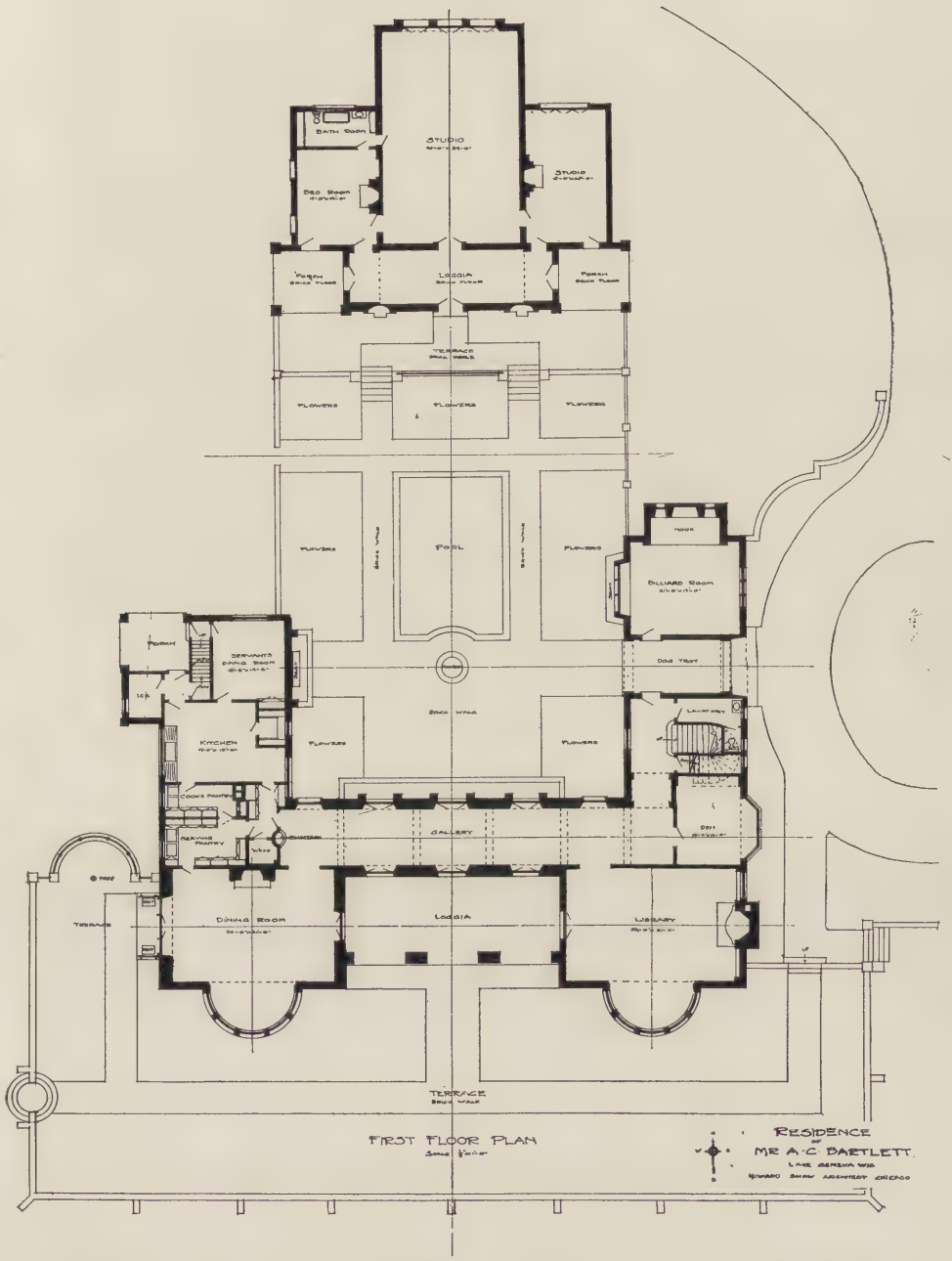
The improvement to which I refer is confined to no part of the country, but its evidences are, perhaps, more conspicuous in the West than in the East. During its earlier phases the Western residence escaped certain excesses, which had been prevalent further East, but the good fortune of this escape was mitigated by the more insistent intrusion of certain palpable deficiencies. The West escaped almost entirely the "palatial" dwelling, and the excess of architectural ostentation which accompanied it. One never got the sense that the big Western house was a wholly inappropriate piece of scenery for the small comedies and dramas of American life. But if it escaped mere architectural ostentation and luxury, it also missed the higher standards of architectural design, which in the East had accompanied this ostentation. The Eastern millionaires would never have lavished so much money on their palaces, unless they had faith in the ability of their architects to design "swell" houses; and in general the architects could not have won this confidence without doing much to deserve it. The consequence was that in the East the best architects disposed of enormous resources, and occupied, within limits, a position of authority with their clients. The Western architects, on the other hand, have reached a corresponding position of authority

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much more slowly. The more practical Western business man, not only could not afford, and did not want a palace, but he only vaguely realized the necessity of paying liberally for architectural excellence. He tended to regard the architect merely as an intermediary between himself and the builder—as an agent who executed a commission, rather than as a man who had his own professional standards to impose and his own personal independence as an artist to maintain. He was not willing to spend money freely upon embellishments to his house and grounds, the importance of which he himself failed to recognize. The consequence was that many of the most expensive houses erected in the Middle West, until recently, lacked refinement of finish and completeness of design. Rooms in large and handsome houses would be finished with coarse "stock" woodwork. The grounds in the vicinity of the house were either crudely planned, or else almost completely neglected. Under such conditions, Western domestic architecture could exhibit certain admirable traits, such as individuality, simplicity and strength; but it could not but be deficient in the highest and most fruitful architectural quality, which is that of style.

Of late years, however, the relation between the Western architects and their clients has been considerably ameliorated. Although these relations still leave much to be desired, the architect has obtained a position of much greater authority in respect to his clients, and this position of authority receives its expression in the establishment of a much more tangible reputation. The early Western architects were renowned chiefly as the designers of commercial buildings; but the most important contemporary designers are known even more for the country houses they have done. When one speaks of Burnham & Root or Louis Sullivan, one thinks chiefly of skyscrapers; when one speaks of Howard Shaw, Frost & Granger, Frank Lloyd Wright, Pond & Pond, and others, one thinks, indeed, of many business structures; but one recalls, also, and even more, certain admirable country houses, and the reason is that the Western architect is beginning to find his best opportunity in the design of domestic buildings, particularly when situated in the country. His clients are willing to spend more money than they were, and they are willing to give the architect a freer hand in its expenditure. These houses show no tendency to lose their appropriately domestic character, but they are finished with much more refinement and care than they used to be. The grounds are frequently planned for the purpose of completing or emphasizing purely architectural values; and the flower garden, not merely as a casual horticultural exercise, but as the vital part of an architectural scheme, is beginning to appear. The results of these improvements in conditions and ideas are a higher standard of achievement, and a much fairer promise for the future. The architects themselves are learning from their own larger individual experiences; and they are learning from one another. The Western architect is placed in a position which enables him to profit by the more considerable achievements of his Eastern brethren, while at the same time the class of houses built in the two different parts of the country do not differ one from another as radically as they did. They are beginning to resemble one another, not only in their size and general character, but also in the point of view from which they are designed. For the first time it can be said with some truth that the sincere, competent and well-known American architects, east of the Mississippi River, are all working upon substantially kindred problems in the design of country houses, and are in a very real sense cooperating to establish a group of living American domestic architectural forms.

One of the best possible illustrations of the truth of these statements can be obtained by comparing the group of houses designed by Mr. Howard Shaw, which were published in the Architectural Record in 1905, with the group published in the current issue. The dwellings at Lake Geneva and Lake Forest, which are published herewith,



RESIDENCE OF MR. A. C. BARTLETT AND STUDIO OF MR. F. C. BARTLETT.
Lake Geneva, Ill. H. V. D. Shaw, Architect.

differ in many respects from those which were published a few years ago; but it is not so much the architect who has changed as it is his clients and his opportunities. The newer group of houses belong, on the whole, to a different architectural class. They have cost more money, they have been much more elaborately finished; in several instances the grounds have been subjected to a rigorous architectural treatment; and the standard of design is, on the whole, higher. The architect himself has evidently been exhilarated by the freer hand which he has obtained, and he has been able to reveal qualities of design which previously have had little chance of expression. These houses immediately place Mr. Shaw among the half a dozen architects in the different parts of the country, whose houses are most likely to be a source of pleasure and instruction to their owners, an example to the architectural brotherhood, and a consolation to the critic.

Among the newer group of Mr. Shaw's houses, that of Mr. A. C. Bartlett, situated at Lake Geneva, in Wisconsin, is the most interesting. It may be remarked, for the benefit of Eastern readers, that Lake Geneva is situated in a broken well-wooded and very beautiful country, and is reached from Chicago only after a journey occupying some hours. Many expensive country places have been built there of late years, but they belong to a type which is more common in the East than in the West. The typical Western country house, even of the more expensive class, is situated near a large city, and is not surrounded by more than a few acres of land. The places which have been bought at Lake Geneva, on the other hand, often contain a larger acreage, and are more by way of being country estates. Such places can be planned and designed independently and with reference exclusively to their own particular architectural and domestic opportunities, and it is, consequently, by no means an accident that on the shores of Lake Geneva is to be found the first admirable and complete example of formal design which is to be found in the West. Many Western architects have been afflicted with a theory that a formal lay-out for a country place is inappropriate in a landscape such as that in the neighborhood of Lake Geneva, because of its rough and heavily wooded character; but such a theory is founded on a misinterpretation of the meaning of a formal lay-out and design. A formal lay-out should mean at bottom nothing but a completely formed lay-out—one which takes account in its dispositions of every relevant, practical and aesthetic consideration. Such a lay-out can be applied to almost any landscape or any site, except one which is rugged and precipitous. Its application is simply a matter of expense. In a rough and well-wooded country it might cost more to lay out an estate according to a formal plan than it would in a level, well-cultivated agricultural neighborhood; but if such a plan is properly prepared, it would not necessarily do any violence to the nature of the countryside. It all depends upon the practical and aesthetic needs of the proprietor of the estate and the ability of his architect. If the proprietor is a cultivated man, with exacting aesthetic standards, and if he is at the same time a lover of flowers and wishes to have his garden architecturally related to his house—if such are the needs of the owner, and if his resources are adequate to his needs, a formal country estate can be designed for him as well in the lake country of Wisconsin as on the sandy plains of Long Island, or along the hillsides of the Hudson River valley.

In the case of the Bartlett place on Lake Geneva, the house was built for a family with high aesthetic requirements, who wanted the plan and the design adapted to their needs, and who did not propose to modify those needs in response to any suppositious demand for mere picturesque informality on the part of the surrounding landscape. One member of the family is a well-known mural painter, who required a studio situated in a separate building, but who preferred to have that studio near the main house and immediately related to it in design. The plan reproduced herewith is the outcome of



HOUSE OF MR. A. C. BARTLETT—THE TERRACE, OVERLOOKING THE LAKE.
H. V. D. Shaw, Architect.
Lake Geneva, Ill.



THE GARDEN AND THE STUDIO OF MR. F. C. BARTLETT. H. V. D. Shaw, Architect.

Lake Geneva, Ill.



HOUSE OF MR. A. C. BARTLETT—VIEW INTO COURTYARD.
Lake Geneva, Ill. H. V. D. Shaw, Architect.



HOUSE OF MR. A. C. BARTLETT—DETAIL OF COURTYARD.
Lake Geneva, Ill. H. V. D. Shaw, Architect.



HOUSE OF MR. A. C. BARTLETT—EAST SIDE.



HOUSE OF MR. A. C. BARTLETT—CARRIAGE ENTRANCE ON THE EAST.
Lake Geneva, Ill. H. V. D. Shaw, Architect.



STUDIO OF MR. F. C. BARTLETT.



HOUSE OF MR. A. C. BARLETT—FROM STUDIO.

Lake Geneva, Ill. H. V. D. Shaw, Architect.



HOUSE OF MR. A. C. BARTLETT—GALLERY.

Lake Geneva, Ill. H. V. D. Shaw, Architect.

these several requirements. The site of the house is immediately surrounded with a thick growth of fine deciduous trees, and the only view which had to be considered was one opening towards the south. The main structure, consequently, was faced south, and the south side of the building, with the most important living-rooms, open upon a spacious, simple terrace, from which the lake is to be seen. The buildings are approached from the north by a driveway terminating in an entrance court on the east side of the lay-out. This entrance court, however, does not lead directly to the main buildings. It affords access to an east wing, running in a northerly direction, which is balanced by a west wing at the other end of the main building. The space enclosed by the wings is paved, and has flower beds in the corners. It constitutes the beginning of a formal garden, which extends beyond the stretch of the wings, and which is enclosed on every side. On the north it is enclosed by the studio, situated on a somewhat higher level, and on the sides by walls and lattices. A visitor entering the house can reach the garden without opening a door by passing through a covered archway which is open at both ends, and from which access to the house is obtained. The consequence of this lay-out is that, while the garden is in its way formal and is absolutely dominated by its architectural surroundings, it is far from being an unnatural thing. It is artificial, of course, but it is made natural and appropriate by the way it meets the needs and enters into the lives of the inhabitants of the house. It is a garden in which they must live if they live in the house, and which, consequently, they are bound to enjoy, just because it enters so intimately into their lives. Furthermore, dominated, as it is, by its architectural surroundings, it is by no means submerged thereby. Back of the walls and buildings are high, dense masses of foliage, which makes the final impression produced by the garden genuinely sylvan.

The Bartlett place will be described in general as an Italian villa, but the description will be only partially correct. There is, indeed, much about it that is Italian, and Italian of the earliest and best period. The architect has kept the bare, abundant wall spaces, and the small openings characteristic of the Italian house, so far as it was possible to keep them in a climate, which makes sunlight something, on the whole, to be sought rather than avoided. The bareness of these wall spaces has occasionally been relieved by lattices, which eventually will be covered with vines; but even the lattice work has not been overdone. Architectural ornament has been applied with economy, and, on the whole, with delicacy and discretion. In all these, and in other respects, the place is Italian in feeling and effect; but, on the other hand, there are many details which are more German than Italian, and the decorations, particularly, have frequently been conceived in a fanciful German spirit, rather than in the graver and more subdued Italian manner. It was evidently the intention of the owner and his designer that the house was not to be taken too seriously—that it was to have the character more of an entertainment than an instructive lesson. The consequence is that the total effect is quaint and archaic, in a way that at times does not wholly harmonize with its leaning towards a more sober Italian beauty. But if this quaintness and archaism are sometimes of doubtful congruity, they are nowhere of doubtful quality. It must be admitted that this archaism contributes essentially to the charm of the house and garden, and the house and garden are one of the most charming with which we are acquainted. It is evident that in this instance a happy and fruitful alliance has subsisted between architect and owner, and that there was no question of the former imposing unfamiliar ideas and standards upon the latter. The two have co-operated to produce a result which is extraordinarily successful, and whose success is all the more extraordinary, in that it is the first house and garden of the kind which have been built in the West. Doubtless Mr. Shaw and his client, Mr. Bartlett, have benefited from Eastern experiments and mistakes



HOUSE OF MR. A. C. BARTLETT—LOGGIA.
Lake Geneva, Ill.



ENTRANCE HALL IN THE STUDIO OF MR. F. C. BARTLETT.
H. V. D. Shaw, Architect.

in the design of Italian villas; but when one remembers the sort of Italian villa which was first erected at Newport and elsewhere, one begins to appreciate the fact that the success of the present house has been due not merely to architectural skill and taste, but to a foundation of correct and fruitful ideas. Mr. Bartlett and his architect have built the right kind of Italian villa, partly because they understood what the right kind of Italian villa was, and it is to be hoped that others will follow their example.

Two other houses, contained in the accompanying group of Mr. Shaw's work, are situated at Lake Geneva; but neither of them has the interest attached to the Bartlett place. One of these houses, that of Mr. Swift, has, indeed, a formal flower garden and certain Italian characteristics, but it belongs to a more ordinary type of Italian villa. It is situated on high land overlooking the lake, with a porch and a terrace commanding the view from that side. The entrance court is naturally situated on the other side of the house, and the garden at one end. This garden is enclosed only by a balustrade, which is appropriate on the side facing the lake; but inasmuch as the garden is or should be an out-door living-room, would not a high wall have been a better form of enclosure with which to divide the garden from the driveway? The house is built of rough plaster, with a tiled roof, which projects sharply over the walls—so sharply that the projection has to be carried by brackets. The whole design is carefully thought out, and exhibits the desire for simplicity, which is becoming more and more a characteristic of Mr. Shaw's houses; but it has been done with a somewhat heavier hand than is appropriate for a villa in the Italian style. It is lacking, that is, in the refinement which the Italians were sure to impart to their simplest and most substantial structures.

The house of Mr. Hubbard Carpenter is also situated at Lake Geneva, and in examining the illustrations of this house the reader must supply many omissions. The photographs fail wholly to do justice to the house, because they have been taken before the grounds and the garden have been laid out and planted; and when this supplementary work is finished its architectural effect will be much enhanced. It is a spacious building in rough plaster, almost symmetrical in design and plan (barring the service extension), and informed by the architects' usual preference for the attainment of an individual and consistent effect by the use of simple means. The house is approached by a straight driveway, and the vista made through the trees by this straight approach is filled by a bold projecting gable, which is one of the chief features of the plan as well as of the design of the house. In the design this gable breaks the long, low lines of the house, and is carried through to the side opposite the entrance. In the plan it becomes a high tiled hall, leading straight through the house to the terrace overlooking the lake. The terrace is partly enclosed on the ends by two verandas, one of which leads off from the living-room and the other, which can be enclosed, if necessary, from the dining-room. The terrace itself projects beyond the verandas, and is partly paved and partly grassed. The flower garden will eventually be situated on the side of the house containing the living-room; and it will, according to the plan, be divided from the driveway by a high wall. When the improvements are completed the effect of the place will be more English than anything else. It will wear an appearance of unpretentious dignity and of solid and spacious comfort, which is one of the most satisfactory appearances a house can make. To be able to create an effect as pleasantly domestic as is that of the Carpenter house is great testimony to Mr. Shaw's good feeling and skill. The architecture is there, but it has disappeared in the impression made by the house as an attractive place in which to live.

In its general plan the house of Mr. E. L. Ryerson at Lake Forest is similar to that of Mr. Carpenter. It is approached by a driveway terminating in a court, which is partly formed by the two projecting wings of the house. On the side opposite to the driveway there is a terrace, which is very broad and spa-



HOUSE OF MR. E. L. RYERSON—DINING-ROOM.
Lake Forest, Ill.



HOUSE OF MR. A. C. BARTLETT—DINING-ROOM.
Lake Geneva, Ill. H. V. D. Shaw, Architect.



STUDIO OF MR. F. C. BARTLETT.



HOUSE OF MR. A. C. BARTLETT—LIBRARY.

Lake Geneva, Ill. H. V. D. Shaw, Architect.



THE SWIFT HOUSE—FRONT.

Lake Geneva, Ill. H. V. D. Shaw, Architect.



THE SWIFT HOUSE—LAKE GENEVA FROM THE GARDEN.

Lake Geneva, Ill. H. V. D. Shaw, Architect.



THE SWIFT HOUSE—DRAWING-ROOM.



THE SWIFT HOUSE—DINING-ROOM.

Lake Geneva, Ill. H. V. D. Shaw, Architect.



THE SWIFT HOUSE—DETAIL OF ENTRANCE.

H. V. D. Shaw, Architect.

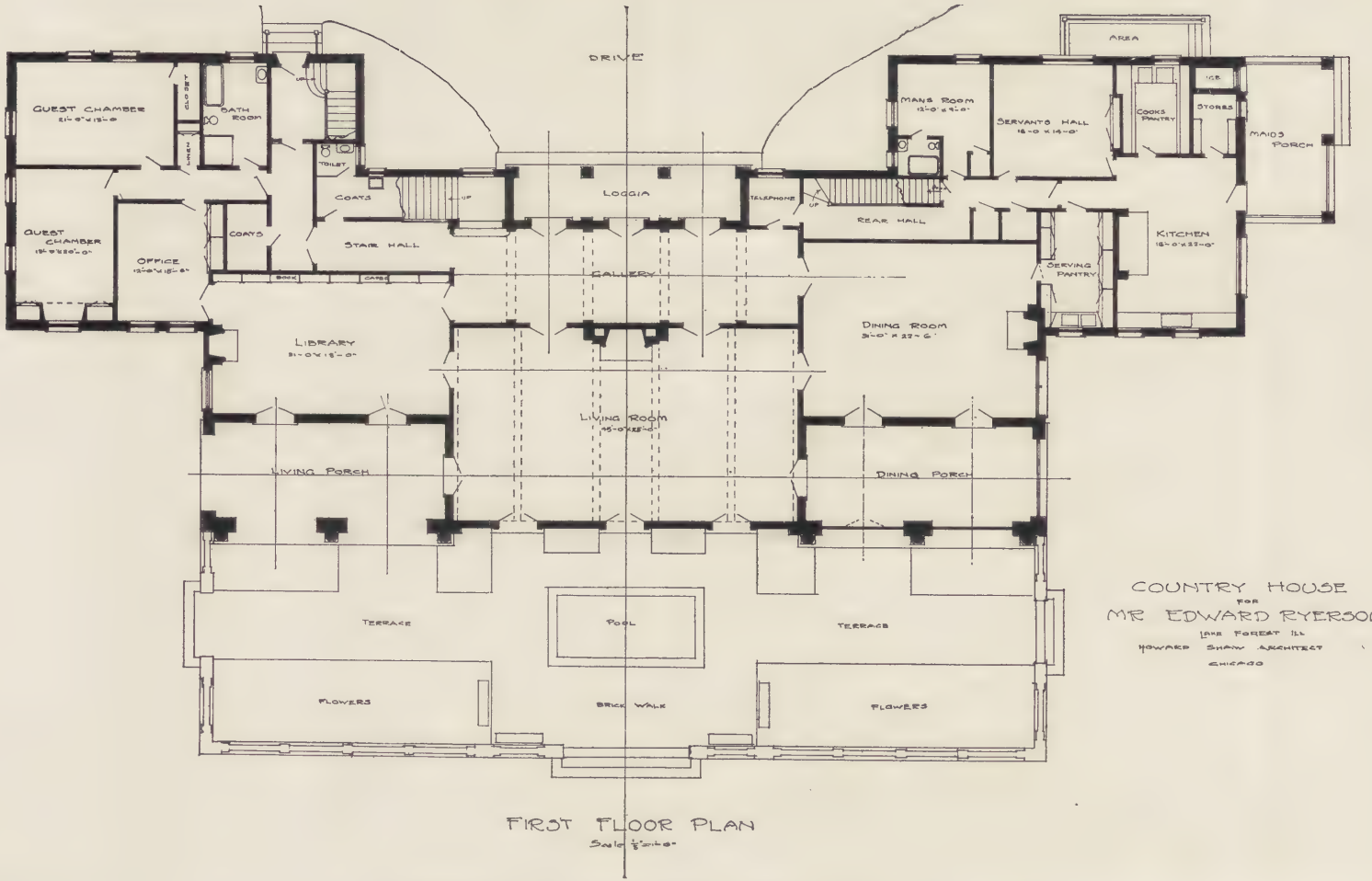
Lake Geneva, Ill.



HOUSE OF MR. HUBBARD CARPENTER—THE TERRACE.



HOUSE OF MR. HUBBARD CARPENTER—THE ENTRANCE.
Lake Geneva, Ill. H. V. D. Shaw, Architect.



FIRST FLOOR PLAN

Scale 1/8" = 1'-0"

COUNTRY HOUSE
FOR
MR EDWARD RYERSON
LAKE FOREST ILL
HOWARD SHAW ARCHITECT
CHICAGO

HOUSE OF MR. E. L. RYERSON—FIRST FLOOR PLAN.

Lake Forest, Ill.

H V. D. Shaw, Architect.



HOUSE OF MR. HUBBARD CARPENTER—DETAIL OF FRONT.
Lake Geneva, Ill. H. V. D. Shaw, Architect.



HOUSE OF MR. E. L. RYERSON—TERRACE.

Lake Forest, Ill. H. V. D. Shaw, Architect.



HOUSE OF MR. E. L. RYERSON—TERRACE.

H. V. D. Shaw, Architect.

Lake Forest, Ill.



HOUSE OF MR. E. L. RYERSON—TERRACE.

Lake Forest, Ill.

H. V. D. Shaw, Architect.



HOUSE OF MR. E. L. RYERSON—ENTRANCE.

Lake Forest, Ill. **H. V. D. Shaw, Architect.**



HOUSE OF MR. E. L. RYERSON—GALLERY.

Lake Forest, Ill. H. V. D. Shaw, Architect.



HOUSE OF MR. E. L. RYERSON—LIBRARY.



HOUSE OF MR. E. L. RYERSON—LIVING ROOM.

Lake Forest, Ill. H. V. D. Shaw, Architect.

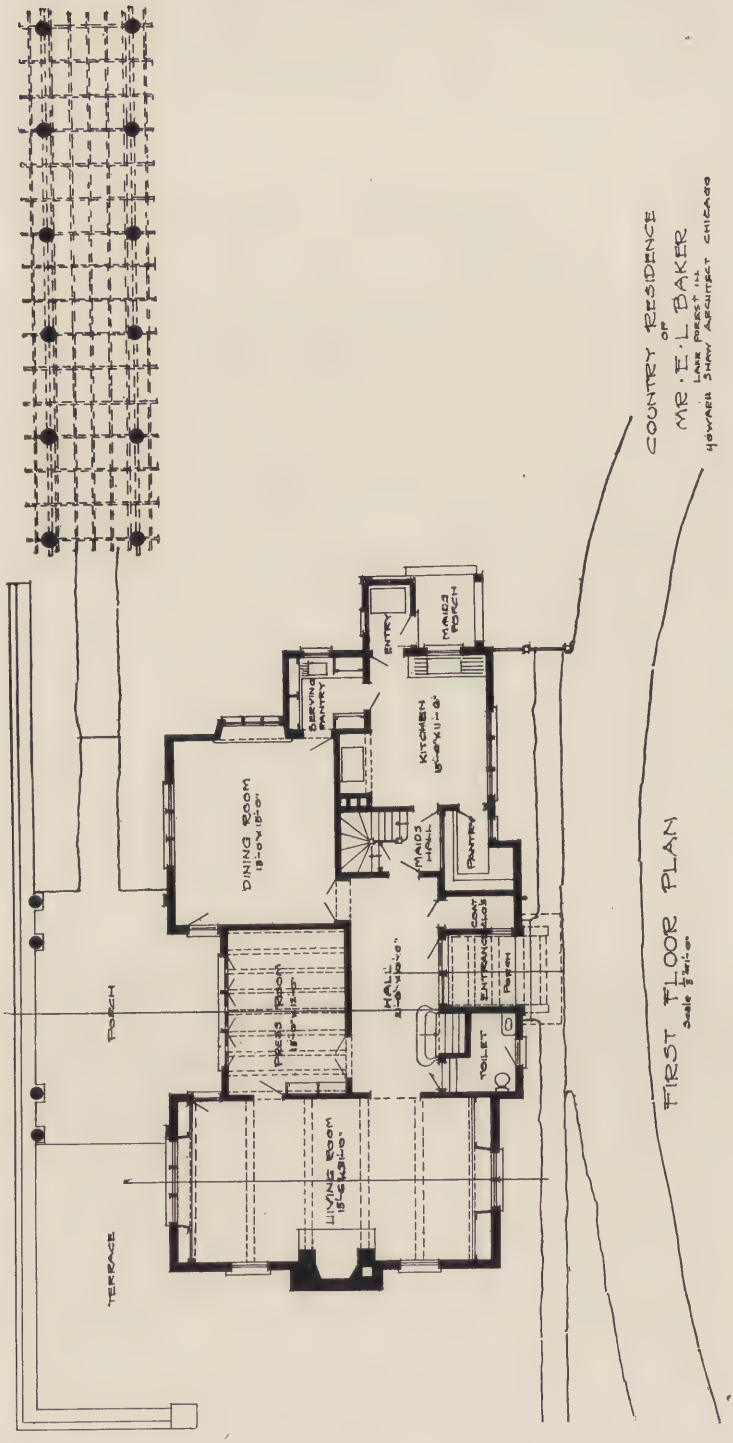


RESIDENCE OF MR. E. L. BAKER—REAR VIEW.



RESIDENCE OF MR. E. L. BAKER—FRONT \

Lake Forest, Ill. H. V. D. Shaw, Architect.



RESIDENCE OF MR. E. L. BAKER—FIRST FLOOR PLAN. H. V. D. Shaw, Architect.

Lake Forest, Ill.

cious, and which is planted with flower beds as well as with grass. The plan of the Ryerson house has, however, necessarily been made more compact than that of Mr. Carpenter. There is no hall leading through to the terrace on the other side. The entrance hall is narrow and leads to the living-room in front, the library on the right and the dining-room on the left. The living-room projects beyond the dining-room and the library, and in the corners so formed are placed two porches. These porches can be enclosed, if necessary, and are admirably designed for a house which will be occupied winter and summer. The plan is very compact, and affords the owner three spacious rooms and two porches within a smaller area than usual; but it has the disadvantage of depriving the library and dining-room of direct light, except, only, from one window. In design the Ryerson house is absolutely symmetrical, and a very effective design it is. The big arches of the two porches and their heavy piers damage the scale of the south façade, which in other respects has been prepared with a sure hand. The general effect has, indeed, a certain elegance, which is unusual in Western dwellings, but which is as far as possible from being obtained merely by refinement of detail. Mr. Shaw is never afraid of being bold, and sometimes he is overbold; but in this instance his boldness is precisely the expression and the assurance of excellent architectural manners.

It would be unfair to pass the Ryerson house by without some reference to the interior. We have remarked, in the introduction to this article, that the better Western architects have been succeeding in persuading their clients to spend more money upon the design of their most important rooms than was formerly the case; and the Ryerson house is a good example of the excellent results which are being obtained by these happier conditions. Only too often, the rooms in Western houses have not been designed at all. They have been "decorated," draped and furnished. In the Ryerson house, however, each of the important rooms has been carefully designed, and the spirit of the design has been carried out in the hangings and in the furniture. These designs are all characterized by the same propriety and simplicity which we have remarked in the exterior; and the result is a similar elegance of effect. There is nothing startling nor original about the appearance of such rooms, just as there is nothing startling nor original about the appearance of any gentleman. They produce the same effect upon one as do good manners; and good manners are, as we all know, a combination of poise and urbanity. The Ryerson house looks like the residence of an American gentleman, and that is the kind of residence which an American gentleman ought to demand.

The house of Mr. E. L. Baker is also a plaster house, and it is also situated at Lake Forest. It is, however, a much less expensive building than those which we have been previously considering, and architecturally a less pretentious one. It is situated on a smaller site, and belongs rather to the type of the better class of suburban house. The design is extremely plain; ornamentation has been entirely eschewed; and as yet, at least, no sufficient planting has been done. The result is, it must be admitted, somewhat bald; but there is every evidence that the attenuation is a matter of preference rather than poverty. The owners of the house manifestly wanted their dwelling to be very plain and very simple; and with all its deficiencies the result is not unattractive. One cannot, indeed, quite see the purpose of a pergola, which leads nowhere, and defines no outlook. Some kind of an enclosed garden would have been more appropriate to the surroundings. But however dubious may be the propriety of the pergola, its effect from the porch is certainly very pleasant; and a similarly pleasant aspect characterizes the interior.

Herbert Croly.



HOUSE OF MR. E. L. BAKER—VIEW FROM PORCH INTO PERGOLA.
Lake Forest, Ill. H. V. D. Shaw, Architect.



HOUSE OF MR. E. L. BAKER—VIEW FROM GARDEN.
Lake Forest, Ill. H. V. D. Shaw, Architect.



HOUSE OF MR. E. L. BAKER—PRESS ROOM.

Lake Forest, Ill. H. V. D. Shaw, Architect.



HOUSE OF MR. E. L. BAKER—DINING-ROOM.

Lake Forest, Ill.

An Appreciation

Through the martyrdom of man was born into the world the spirit of material and spiritual freedom. Every act of intolerance was a step toward toleration, for through them men awoke to the fact that the aspirations of the mind could not be suppressed by physical force, that "death cannot kill what never dies," and that the way of peace was to be found along the road of bearing and forbearing.

This theme, the growth of liberty of conscience, has been partially illustrated by a decoration recently placed in the State Capitol at Harrisburg, the work of Miss Violet Oakley, a young and gifted artist, whose grasp of her subject, in union with great technical skill, has placed her in the foremost rank of American artists.

Miss Oakley came to her task not by the way of a rigid academic training, under the instruction of a master of the art, but by her innate genius, a well-developed power of observation, a quick intuition of artistic fitness and a singleness of purpose. Her training in her art was varied, often interrupted and at best meager: a winter at the Art Students League in New York, a year in London and Paris, followed by two years or more of broken study in the schools of the Pennsylvania Academy of Fine Arts. In 1898 she was called upon to carry out a mural decoration in the sanctuary of All Angels' Church, at New York. A brief but carefully thought-out scheme was given her to portray, viz., the Celestial Hierarchy: the symbolic emanations of the attributes of God in their threefold office of purifying, illumining and perfecting, as exemplified in the nine angelic orders. Miss Oakley approached the work with some doubt of her ability to successfully handle the commission, and without a knowledge of the methods employed in the execution of mural decorations, nevertheless, she bravely undertook the work and ultimately brought forth a vigorous, masterly and original composition, and withal, most beautiful in color. This work opened her eyes to her own ability, and revealed to all appreciative onlookers that another decorative artist had come into being. During the progress of this work, and subsequently, at the instance of the same firm that employed her upon the wall paintings at All Angels', she made a number of successful essays in the field of mosaic and colored glass work.

These mural decorations, glass windows and mosaics made plain to those having in charge the decorating of the Governor's reception-room in the Capitol at Harrisburg that they could safely place in Miss Oakley's hands the designing and painting of a frieze illustrating the history of the founding of the *State of Liberty Spiritual*—the triumph of the idea of liberty of conscience in the "Holy Experiment of Pennsylvania." The frieze is now finished and in place. As a work of art it is monumental and most satisfactory; as an historical study the student may possibly feel that a better choice of incidents might have been made for one or two of the first illustrations; and again, that Miss Oakley would have done well to emphasize the friendship between Sir William Penn and the much-belied James II. of England, a king who lost his crown because he was true to his conscience; because he dispensed from the terrorable penal laws Nonconformists of all kinds, Catholics, Quakers, Presbyterians and others, first in England and afterwards in Scotland, and because he bravely opened to men of every faith, in spite of the unjust test acts, the civil, judicial and military offices of the government, attempting, rashly and prematurely, to do for England what Penn later accomplished in Pennsylvania, viz., complete toleration. However, that is neither here nor there; it is easy to find fault and to criticise, much more so than to build up, to create, to tell anew in a way a great truth, to at once instruct the mind and at the same time to please the

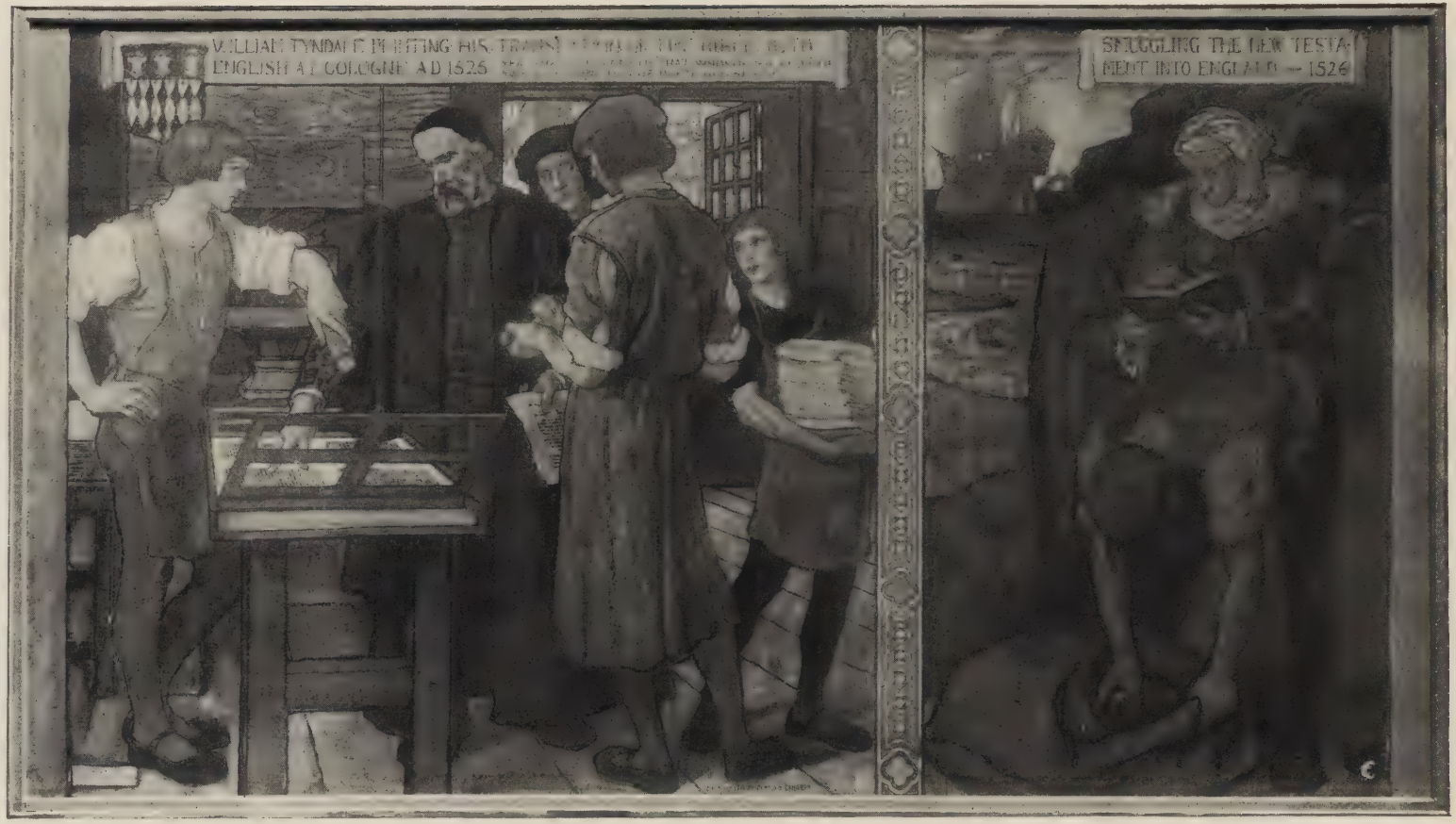
aesthetic sense, all of which Miss Oakley has accomplished and more, in the cycle at Harrisburg.

The accompanying black-and-white illustrations give but a faint idea of the beauty of the frieze, as it is so dependent on its color; moreover, to be fully appreciated at its true artistic value, it should be seen in place, where its harmony of composition, of form and of coloration, is brought out sharply and clearly through the relations of light to light, part to part, and the whole to its architectural environments. The frieze is not a series of pictures, but a continuous decoration, a sequence of pictoral decorative motifs, and all most satisfactory, pleasing alike to the artist, the connoisseur and the student, for in it will be found art for art's sake, a symphony of color, an illustrated truth, and a medium of instruction which will lastingly fix in the mind of the spectator historical facts of the greatest moment. It is not often that the ornamental serves a utilitarian purpose as it does here. The work is so excellent from almost every point of view that the critic is loath to say anything derogatory; nevertheless, in a strictly conscientious statement, he must admit that in a few places the drawing is somewhat faulty; this, however, is a minor defect, which is eclipsed by many artistic values. The work manifests that the artist profoundly considered her subject, as every detail and accessory plainly shows great study; the poses of the figures and the expression of the faces make evident that she fully appreciated the various situations, imbuing them with a deep and proper sentiment; and always keeping in mind the canons of her art, in no case sacrificing the artistic interest to the historical portrayal.

Miss Oakley has a future of great promise, both to herself and to American mural decorative art, if an opportunity is given her in which to display her genius. And who can doubt that such opportunity will be given her, for the work at Harrisburg must lead to other work, and even of greater importance?

Caryl Coleman.





A. D. 1525.—SOUTH WALL.
William Tyndale printing his translation of the Bible into English at Cologne.

A. D. 1526.—SOUTH WALL.
Smuggling the first volumes of Tyndale's translation of the New Testament into England.

MURAL DECORATIONS IN GOVERNOR'S ROOM, STATE CAPITOL, AT HARRISBURG, PA. Violet Oakley, Artist.



A. D. 1536.—SOUTH WALL.

Execution of William Tyndale at Vilvorade. He was strangled and his body was burned at the stake.

MURAL DECORATIONS IN GOVERNOR'S ROOM, STATE CAPITOL, AT HARRISBURG, PA. Violet Oakley, Artist.



A. D. 1537.—SOUTH WALL.
The answer to Tyndale's prayer.

A. D. 1546.—SOUTH WALL.
Anne Askew, before the Lord Chancellor, condemned by the State, under Church of England authority, to be burned for heresy—refusing to recant, saying: "Rather deathe than false to faythe."

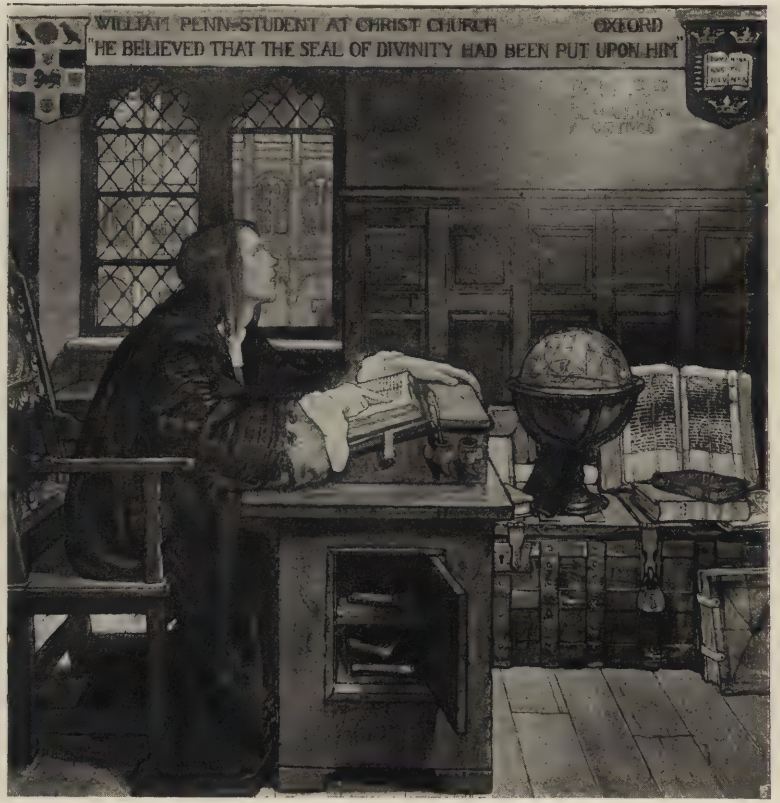
MURAL DECORATIONS IN GOVERNOR'S ROOM, STATE CAPITOL, AT HARRISBURG, PA. Violet Oakley, Artist.



A. D. 1642.—SOUTH WALL.
Culmination of all intolerance and persecution in the Civil War: development of the Puritan Idea.
MURAL DECORATIONS IN GOVERNOR'S ROOM, STATE CAPITOL, AT HARRISBURG, PA. Violet Oakley, Artist.



A. D. 1652.—WEST WALL.
George Fox on his mount of vision.



A. D. 1660.—WEST WALL.
The lad, William Penn, student and seeker, in his study at Oxford, stirred by a Vision of Light, and consecrated to God's service.

MURAL DECORATIONS IN GOVERNOR'S ROOM, STATE CAPITOL, AT HARRISBURG, PA. Violet Oakley, Artist.



A. D. 1662.—NORTH WALL.

Penn meets the Quaker thought in the field—preaching at Oxford. He turns from the world to listen to its message.

MURAL DECORATIONS IN GOVERNOR'S ROOM, STATE CAPITOL, AT HARRISBURG, PA. Violet Oakley, Artist.



A. D. 1662.—NORTH WALL.

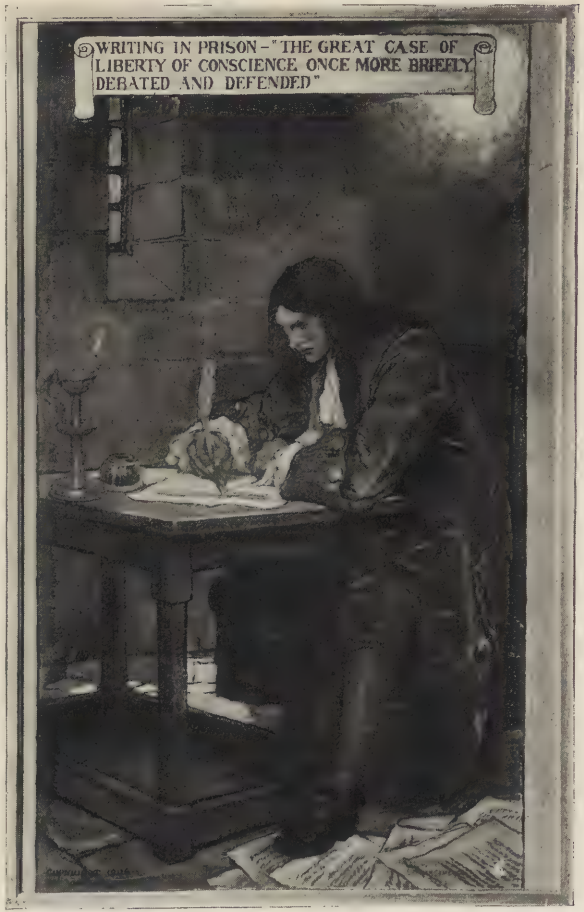
Admiral Sir William Penn denouncing and turning his son from home, because of the latter's sympathy with the despised sect of Quakers.

MURAL DECORATIONS IN GOVERNOR'S ROOM, STATE CAPITOL, AT HARRISBURG, PA. Violet Oakley, Artist.



A. D. 1670.—NORTH WALL.

Penn's arrest while preaching at meeting, under the Conventional Acts, which made unlawful any service except that of the Church of England.



A. D. 1670.—NORTH WALL.

Writing in prison, "The Great Case of Liberty of Conscience, once more briefly debated and defended by the authority of Reason, Scripture and Antiquity."

MURAL DECORATIONS IN GOVERNOR'S ROOM, STATE CAPITOL, AT HARRISBURG, PA. Violet Oakley, Artist.



PENN EXAMINED BY THE LIEUTENANT OF THE TOWER OF LONDON; CONDEMNED TO IMPRISONMENT IN NEWGATE.
MURAL DECORATIONS IN GOVERNOR'S ROOM, STATE CAPITOL, AT HARRISBURG, PA. Violet Oakley, Artist.



A. D. 1670.—NORTH WALL.

Having been liberated through the force of his own writings, Penn seeks to free other Friends imprisoned, and makes use of all the powerful influence with the Crown, inherited from his father, to secure their liberation.

MURAL DECORATIONS IN GOVERNOR'S ROOM, STATE CAPITOL, AT HARRISBURG, PA. Violet Oakley, Artist.



A. D. 1670.—NORTH WALL.

Penn's Vision, "Behold my servant whom I uphold. . . . . He shall not fail nor be discouraged till he have set judgment in the earth. . . . to open the blind eyes, to bring out the prisoners from the prison, and them that sit in darkness out of the prison house. . . . . Sing unto the Lord a new song, ye that go down to the sea."

MURAL DECORATIONS IN GOVERNOR'S ROOM, STATE CAPITOL, AT HARRISBURG, PA. Violet Oakley, Artist.



A. D. 1681.—EAST WALL.

The Charter of Pennsylvania, granted to William Penn, March 4, 1681, receives the King's signature.



A. D. 1682.—EAST WALL

Penn's first sight of the shores of Pennsylvania (as he ascends the river), "from whence the air smelt as sweet as a new-blown garden," October 27, 1682.

MURAL DECORATIONS IN GOVERNOR'S ROOM, STATE CAPITOL, AT HARRISBURG, PA. Violet Oakley, Artist.

Bridges and the Art Commission

When Manhattan was expanded into Greater New York, it was considered an achievement of some importance for artistic interests and therefore for the interests of civilization that a provision for an Art Commission was inserted in the charter of the enlarged municipality. At first it was offered only works of art that were to pass the scrutiny of this body. Its sole function was to inspect the teeth of gift horses. But then it was made mandatory upon the proper authorities to submit the design of public buildings, and permissive to the designs of public works other than buildings, finally mandatory as to all public erections of more than trifling cost. Bridges, of course, are the works other than buildings of which it is most desirable to secure so far as it can be secured by official inspection that their appearance should be inoffensive, at least as inoffensive as the nature of the case admits.

It is impossible to say how much good the Art Commission may have done in its original and very limited field. By the nature of the case, the result is negative. We know not what horrors we might have had that we have been spared. As pins have saved many lives of persons who have refrained from swallowing them, so an Art Commission may be a very beneficent agency upon evidence which it has refused to allow to be adduced. No singularly bad statues have been erected during its existence and perhaps there might in default of it have been many such. The merry war over the Heine Monument, if I remember aright, preceded the institution. It was a merry war because, under pretence of being aesthetic, it was really racial and religious. The denouncers of this particular monument were often suspectible of denouncing it because they opposed any monument at all to its subject, and, under the pretence of being zealous aesthetes, of being anti-Semites in very thin disguise. There has not been since such a row about any work of plastic or of graphic art.

Let us admit that the Art Commission has saved us from many eyesores in the pictorial and sculpturesque way. Still it cannot be admitted that as a curator of the public aesthetic interests in the article of bridges the commission particularly shines. New York is disfigured by quite its share of ugly and inexpressive bridges, mostly, to be sure, if not altogether, erected before it occurred to anybody in authority that it was desirable to take some precautions to the end that a conspicuous erection should not be an eyesore. The aesthetes of the Art Commission could not have saved us from these. They could not of their own force and knowledge have saved us from Vandalistic projects even after they came into office and began to function. With the existing harsh and unnatural divorce between architecture and engineering, between artistic, or pseudo-artistic building and undisputedly scientific building, the "artist" who cannot invent or even compute a construction is at a great disadvantage compared with the scientist who can. When he tells the scientist that a certain disposition is ugly, the scientist may retort upon him that it is necessary. Probably, one who has faith that the necessary cannot be the ugly may say necessarily, this is not the case. But the unscientific artist cannot prove to the inartistic scientist that it is not the case. He has to apply to the culprit for the knowledge whereupon to condemn him. He himself does not know enough. Hence the mutual attitude of distrust and contempt with which the man of exclusively artistic training and the man of exclusively scientific training confront each other. All of which might be saved by knowledge enough on one side and "feeling" enough on the other to take the other point of view. "Mr. Dooley" has remarked about Christian Science, that if the Christians had a little science and the doctors a little Christianity, it wouldn't much matter which you had so long as you had a good nurse. So we may say that if the artists had a



DESIGN FOR PROPOSED HENRY HUDSON MEMORIAL BRIDGE ACROSS SPUYTEN DUYVIL CREEK, NEW YORK CITY—LOOKING WEST, THE PALISADES IN THE DISTANCE.

Boller & Hodge, Walker & Morris, } Associated Engineers and Architects.

little science and the scientists a little art, these perennial disputes and mutual contempts could not arise, provided each side had a little sense of the common or equine kind.

But at least we have a right to require of Aisthetikos when he is brought into contact or even collision with Gnostikos, that he should recognize that the gnostics differ among themselves in the degree of their sensibility to aesthetics, that there are engineers and engineers, and that when they find evidences of sensibility in an engineering work they should recognize it. Above all that when some Gnostaisthetikos appears with a design for a metallic bridge they should acclaim the union of science and art, and valiantly maintain the cause of Gnostaisthetikos against all those comers who are neither gnostic nor aesthetic.

Now, unfortunately, that is just what the official municipal aesthetes have conspicuously failed to do. They have not drawn the proper distinction between the engineers of aesthetic sensibility and the engineers devoid of it, as the presence or absence of it is developed in their respective works. And when they have found and been forced to recognize the union of artistic sensibility and scientific competency in a design, they have not exerted themselves to secure for it execution and welcome.

In point of time this latter grievous failure precedes the former. The history of the design for the Manhattan Bridge is still a sore subject to a good many persons who had no interest in the matter except a public-spirited desire that the city should get, practically and artistically, the best for its money. When the revised design for that work was prepared and submitted by Messrs. Lindenthal and Hornbostel, it was quite unanimously acclaimed by our artistic world as a step in advance in artistic engineering, as a promise of a far better state of things to be. This state of mind was shared by the Art Commission which passed it, we are entitled to say, enthusiastically. But the artistic merits of the design were inextricably involved with a new construction, at least a construction which upon this scale was en-



NEW YORK CONNECTING RAILROAD BRIDGE ACROSS THE EAST RIVER—VIEW TO LONG ISLAND SOUND.
Gustav Lindenthal, Palmer & Hornbostel, } Associated Engineer and Architects

titled to be called novel. The mechanical sufficiency and feasibility of this construction were fiercely disputed. The weight of scientific authority was distinctly on the side of the new design, but the official authority was upon the side of the advocates of a reversion to the old. That was an opportunity for the Art Commission, the greatest opportunity to do something for public art that has been presented to it or that is likely to be. It let the opportunity go. When another design was substituted for that which it had enthusiastically approved, it was surely entitled to be shown cause why it should in effect retract its approval of the first by an approval of the second. It was claimed for the design it had approved that it marked a scientific as well as an artistic advance on the old type of suspension bridge, and this claim was fortified by the report of a commission of experts. The Art Commission was itself, of course, of no authority on this question. But pretty clearly it had the right, and one would say that it had also the duty of being shown cause why it should be required to nullify its decision, when that requirement came so near being a requirement that it should stultify itself.

The failure to distinguish between engineers who take some successful pains about the appearance of their works and engineers who take none is also a grievous fault, it will be admitted, in a body which exists for the purpose of advancing aesthetic standards. And this is a fault that the Art Commission seems to have committed in two recent and conspicuous instances, in the instance of the Henry Hudson Memorial Bridge, so-called, across Spuyten Duyvil Creek, and in the instance of the arch bridge across the East River of the New York Connecting Railroad. In the former cases, the commission interposed an absolute veto on aesthetic grounds, and thereby not only destroyed the project, but put it out of the question that any bridge could be erected in time for the tercentenial celebration of the discovery of the Hudson River in 1909. So far as the official record goes these are artistically the worst designs for bridges ever proposed in New York, since they are the only ones that have incurred official censure. Of course, that is not a fair way of putting it. "Non constat" that the commission, had it been in existence and functioning, would not have prevented the erection of the Williamsburgh Bridge, say, or the Third Avenue, or of the Willis Avenue, or of any other brutal bridge that defaces any of our estuaries. But it happens that the authors of these two bridges are conspicuous among their fellows for the care they take that their works shall be not only sufficient but presentable. The author of the Central Bridge, which replaces that called of Macomb's Dam, of the similar Harlem River Ship Canal Bridge, of the Bridge of the Northern Railroad, all crossing the Harlem, is by no means the first comer, and is entitled, one would say, to particular consideration. Clearly Mr. Boller did not get it from the Art Commission, which in effect decided that his design was generally and incorrigible inartistic. At least it is only upon that ground that the employment of a veto instead of the application of helpful and constructive, and, one may add, confidential criticism, can be justified. Inasmuch as, unlike another "bridge builder" or pontifex, the commission does not claim, and certainly would not be allowed a pontifical infallibility, it is a legitimate inquiry whether this is so.

Mr. Boller's original design for the Spuyten Duyvil Bridge was much more "architecturesque" in the conventional sense than the later, which the commission rejected. Like the later the bridge proper, the actual span, was an arch of steel, but enclosed between arcades of masonry which acted as abutments and which were evidently needful as such. That the terminal piers of the arcades at the center should be additionally loaded with masses of masonry to increase the resistance of the abutments to the thrust was also, if not a mechanical necessity, an intelligible device for assuring visible as well as actual sufficiency. But it was by no means necessary that the "load" should take the hackneyed form of the Roman triumphal arch.



NEW YORK CONNECTING RAILROAD BRIDGE ACROSS THE EAST RIVER—VIEW WEST FROM THE LONG ISLAND PYLON.

Gustav Lindenthal, Palmer & Hornbostel, { Associated Engineer and Architects.

That this form was given to it was very likely due to the popular success which that architectural feature had derived from its employment in the temporary Naval Arch in Broadway, and in all the competitive designs for the Memorial Bridge across the Potomac at Washington, as well as to the facility with which, as was shown in the former case, the form lent itself to sculptural decoration. But the introduction of the feature here might be held to denote poverty of invention on the part of the modern engineer. It had the effect of accentuating the division of interest between the masonry approaches and the metallic central span, and of emphasizing also that this latter was a makeshift, due to the impracticability of using masonry for so great an arch. The author was very happily inspired when he saw his way to discarding the scheme altogether and carrying his central span back to the natural abutment, thereby, apparently, nearly doubling it and approaching or equalling the "record" for a hinged arch of this kind. There can be no question of the superior beauty and impressiveness of this springing bow of steel. The effectiveness of it had already been demonstrated in the like bridge of nearly the same span that is sprung with across the gorge of the Niagara just below the Falls. In the revised design, in effect the new design, the arch was "the thing," practically the whole thing. This being an assured success, the other questions were of detail, and subordinate almost to the point of negligibility. Not quite, of course, for nothing that should hinder or enhance the effect of the thouand-foot bow ought to be neglected. Among the questions of detail, one was raised by the author of the bridge just referred to at Niagara, who concluded, after his work was completed, that its appearance would have been improved if he had made the bracing between the arch and the roadway normal to the curve of the arch instead of vertical. It is a question also, when, by the extension of the central span backward to its natural abutments, the abutting function of the masonry approaches had been superseded, these approaches might not also have been advantageously skeletonized in metal. Besides the obvious economical advantage of that course, it would have the aesthetic advantage of substituting a homogeneous for a heterogeneous construction and of avoiding the apparent pretension of the massive approaches of masonry to the performance of a function which they no longer in fact discharged. These were questions with which helpful and friendly criticism might well have busied itself, as well as the question in what form sculptural decoration could advantageously be introduced if it were desirable to introduce it at all, that form being certainly no longer that of the "load" of the Roman arch. But to dismiss as wholly inartistic and unworthy of execution an erection of which the leading motive and the central feature are so successful and effective as in this case is a procedure which cannot be exactly described as appreciative.

The evidence of inappreciation and want of comity looks quite as complete in the other case. Mr. Lindenthal, also, is one of the engineers who is honorably distinguished by his attention to the aesthetic requirements of his work. Not only would such a work as the design for the North River Suspension Bridge stamp its author as an artist as well as a scientist. But, as Bridge Commissioner, Mr. Lindenthal took the longest step, perhaps, that has been taken towards reconciling the claims of science and art in bridge building. *Miscuit utile dulci.* This he did by associating with the engineer an architect, not at all in the ordinary way of invoking an architect to "beautify" by extraneous detail or extraneous features a design of which the artistic fate was determined before the invocation. But in the first place he chose in Mr. Hornbostel an architect unusually capable of taking the engineering point of view, and then he associated him with the design from its inception. The result of this association was those two really brilliant revisions of the designs for the Blackwell's Island and the Manhattan Bridges. In the design for the arch bridge across the East River of the New

York Connecting Railroad, Mr. Lindenthal gave himself again the advantage of this collaboration. The conjunction deserved the respect of everybody interested in the promotion of the artistic side of engineering, and especially, it would seem, of a body of which the special function, so far as its jurisdiction over engineering works goes, is to secure that promotion. To most students the result will appeal as a very striking success. The scheme, the arc and chord, is a novelty hereabouts. It is a novelty anywhere on this colossal scale, though if I remember aright, it has a prototype on a very much smaller scale in one of the admirable bridges over the Kiel Canal. However that may be, very few will be disposed to affirm that the gap of a thousand feet between the low shores the bridge connects could have been more impressively spanned. Indeed, the objections of the Art Commission seem to lie not at all to the work in metal, which in the "through span" of this bridge, as in the case of the "deck span" of the arch which crosses the gorge of Spuyten Duyvil, is the "Leitmotif," in truth the only motive of the structure, to which all the rest is appendage. No doubt the towers here are important appendages. They had to be. Where, as here, rock is wanting to which to convey the enormous thrust of an arch of a thousand feet computed to carry all the traffic that a great railway system can throw upon it, the artificial abutments which supply the place of the natural must be of huge mass and weight. Their function being passive resistance, their expression must be of immobility, of a pyramidal fixity. The foundations of them are of coursed grey granite, the superstructure monolithic shafts of concrete of a warm tint obtained by mixing crushed red granite in the material. The weight and size, if not the shape, of these masses being fixed by engineering requirements, and the architectural character of them by their function, there does not seem to be much room for discussion as to their architectural treatment. Undoubtedly "elegance" would here be mere absurdity, and an application of conventional architectural ornament an equal absurdity. Yet there is some room for discussion, no doubt, and the giving of counsel and suggestion to the designer would be a proper exercise of the functions of an Art Commission.

The proper architectural treatment of a mass of which the function is mere inert "load" and in a material for the architectural treatment of which precedents are almost wanting is a fit if not a very promising subject for architectural discussion. But discussion is as different a process as possible from the blunt unreasoned rejection which the design for the Hudson Memorial Bridge has met at the hands of the actual Art Commission or from the "suspensory veto" with which the commission has "hung up" the design for the East River arch bridge, accompanied by a statement of reasons which the designer must be ingenious and fortunate if he can make anything of, much more find useful for edification. The "I don't like it" which is the stereotyped confession of lay helplessness in the presence of a work of art is really all that is to be got out of the Art Commission in respect to the general design of the Hudson Memorial or of the treatment of the masonry in the East River arch.

The fact remains that the two engineering projects most interesting from an architectural point of view which have come before the Art Commission during these many months have been, the one defeated, the other indefinitely postponed, by the appointed custodians of the city's artistic interests. It is not a showing which will increase the public usefulness of the commission by enhancing the public confidence in the intelligence and equity of its decisions.

Montgomery Schuyler.

Illumination and the Architectural Treatment of Lighting Fixtures.

Lighting fixtures perform three distinct offices in a building. They are to be considered first as carriers of some light-giving medium; secondly, as artistic factors in an exterior or interior architectural or decorative composition; thirdly, in relation to the effect of the light upon its environment.

A study of architectural lighting can hardly lead to other than one conclusion, namely, that the French were the first people to give it the consideration that its importance demands. Its importance as a physical need can be realized to the fullest when we remember that it renders possible about one-third of the active part of our existence. Its artistic importance is best illustrated when we comprehend the high place that lighting fixtures took and the development they underwent in France beginning with that period at which Le Brun became the master-mind in the creation of interiors, and ending, perhaps, with the downfall of the Bourbon dynasty in the death of Louis XVI. Most work done since has been based upon principles evolved during that period, excepting, of course, some recent work, in which electricity has been used. Here the absence of restrictions imposed by gas and oil has given a freer scope to the imagination in the creation of new ideas.

The very earliest type of lighting fixture is that stone lamp, with its stand, which was found in a cave in the province of Dordogne. This lamp, judging from the reindeer ornament incised upon it, belongs to the quartenary period, so that knowledge of the very beginning of our subject comes to us from France. Pagan forms of worship throve upon darkness. Small, flat oil lamps found in the Nile Valley show clearly the form in use in Egypt. It was the prototype of the Greek and Roman lamp of later date found in such profusion at Pompeii and Herculaneum, where it was sometimes placed on stands of varying height or suspended. The very limitations of size and of the light-giving medium of these lamps compel us to the conclusion that strongly and evenly lighted apartments, such as we have to-day, were unknown to the peoples of the ancient world. The flame was low and flickering. If the lights were distributed around the the room the result, at best, could have been no more than a feeble diffusion; if the lights were concentrated around some special point, as the dining table, the shadows were correspondingly deep in the recesses and corners of the rooms. Apartments during the Dark Ages were even more poorly lighted than during the earlier periods; indeed, it may be said there was little improvement in the science of lighting during the days of the feudal system, except, perhaps, in churches, many of which were lighted at the apsidal east end by large candlesticks. The Crusades were indirectly responsible for the corona type of chandelier, which was modeled to represent the walls and turrets of the Holy City. This form was the real beginning of the chandelier type of the present day. It permitted the concentration of a large number of light units around a given point. Suspended from above, where the room was approximately square, it gave an even distribution of light throughout the apartment. In churches it is desirable to have the sanctuary more brilliantly lighted than the other parts, so as to draw the mind in that direction towards holier and loftier thoughts. These mediaeval chandeliers were usually hung in the middle of the nave, which was, as a consequence, brilliantly lighted, leaving the transepts, and particularly the sanctuary, relatively dark. They were also of so large a diameter that the adjacent walls of the nave were strongly overlighted—making an inharmonious light spot at a point where there



FIG. 1. PALAIS DE FONTAINEBLEAU—BOUDOIR OF MARIE ANTOINETTE.
Note how the crystal and gilt bracket in front of the mirror has the appearance of a chandelier suspended in an arched opening between the room and its duplicate reflection.



FIG. 2. PALAIS DE FONTAINEBLEAU—THE ROOM WHERE NAPOLEON I. SIGNED HIS ABDICATION.
In this apartment the reflection of the chandelier in the mirror opposite carries the

was nothing towards which the eye and mind were to be drawn. We can readily imagine that the radical defects of this method of lighting led to its gradual disuse. In Gothic times fixtures became much smaller in diameter; the lights were clustered closely around a central shrine-shaped motive, in the center of which, at times, stood a virgin enshrined. These early chandeliers were frequently supplemented, as a source of light, by large isolated factors, unrelated to their surroundings in the sense of being an integral part of the decorative treatment. When the feudal barons were shorn of their power, and a strongly centralized government was established in Paris, the bestowal of honors and benefices by royal favor rapidly drew to the capital a throng of nobles and churchmen. State functions grew in importance and splendor, and the halls in which assemblages,



FIG. 3. GRAND TRIANON—HALL OF THE MIRRORS.
The reflection and re-reflection of the chandeliers in this room contribute in no small degree to the effect of spaciousness.

candlesticks which were placed beside the high altars in the late Gothic and Renaissance churches. These candlesticks had a tall candle of considerable size, which gave a large and steady flame, and were a distinct step in advance.

In early classic times, through the Dark Ages, the Gothic and the Renaissance periods, lighting fixtures seem to have received consideration simply as fêtes and dinners were held were brilliantly lighted. This illumination was generaly achieved by two rows of chandeliers, hung one row along each side of the room. Each chandelier was composed of a cross of wood, armed with a great number of candles. The whole was suspended by a rope, with garlands festooned from this rope to the arms or cross-pieces. Along the walls sconces were placed, formed in the same man-

ner. These crude chandeliers and sconces were massed very closely together and made possible evenly lighted rooms in the sense that we know them to-day. This era was really the beginning of the modern system of lighting. The academic restrictions placed upon all state work done in France during the time of Richelieu, and later, continued under Mazarin and his pupil, Colbert, compelled a thorough consideration of all artistic questions relating to the finishing of apartments such as no other country of that day shows. Previous to this period lighting fixtures had been considered only as isolated objects, worthy at times, it is true, of the highest artistic effort, as evidenced in Italy during the fifteenth century; yet such consideration was related more to the expression



FIG. 4. CATHEDRAL NOTRE DAME DE PARIS—NAVE.

The hanging of the chandeliers in two rows, one at each side, leaves the view of the nave unbroken by what would be disturbing factors suspended in the centre from the crown of the vault.

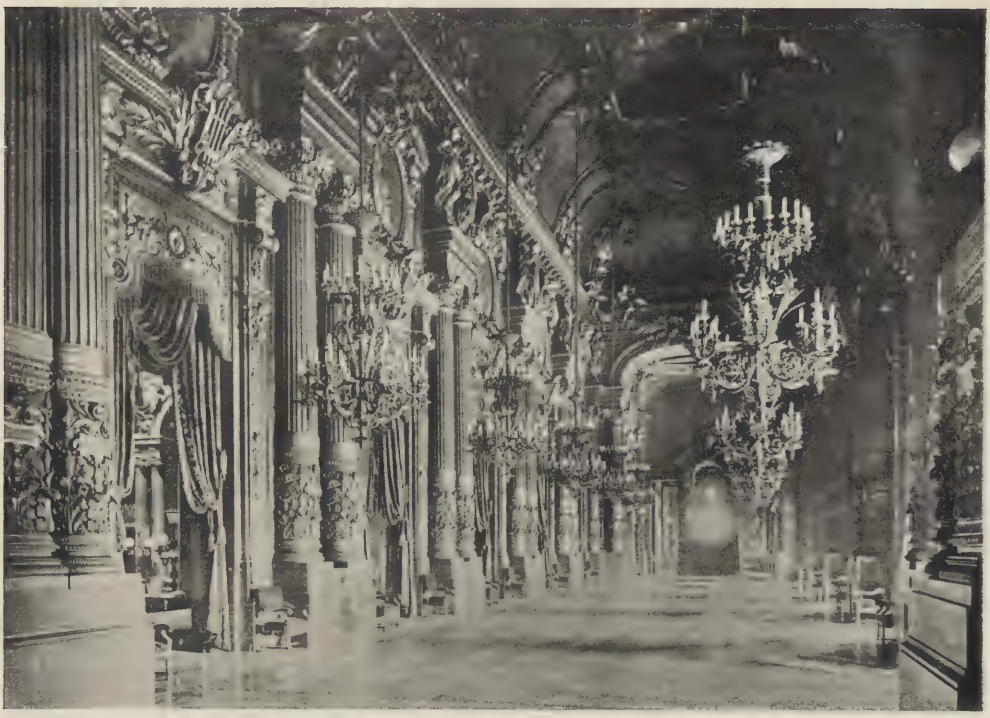


FIG. 5. PARIS OPERA HOUSE—GRAND FOYER.

The chandeliers are here also suspended in double columns, leaving unobstructed the view of the decorated ceiling above.



FIG. 6. VERSAILLES—THE GALLERY OF BATTLES.

In this long gallery the brackets on the panel divisions above the busts break up the flat wall surface and divide the pictures distinctly from one another. In reality this is, of course, much more apparent than in the illustration.

of the subject in hand as an individual thing than to a consideration of its relation to its environment. The master mind of Charles Le Brun (1609-1690) dominated with despotic sway all artistic work done for the government in France during this time. He compelled a careful consideration of all the conditions governing the decorating of a room. Treating all the elements entering into its composition as an artist treats the

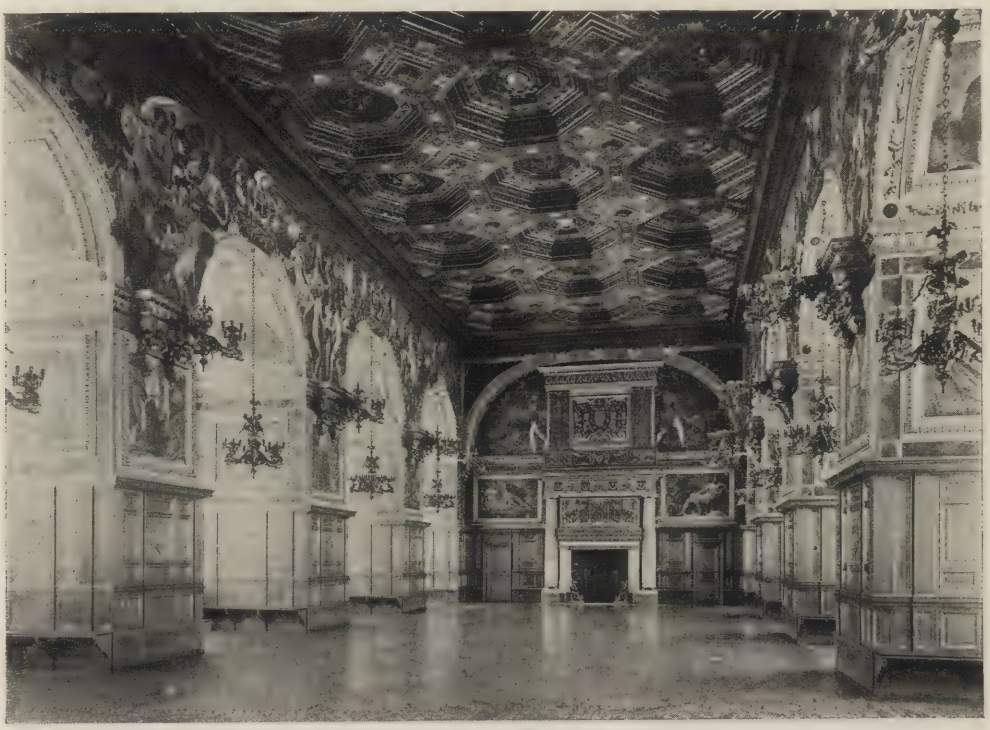


FIG. 7. PALAIS DE FONTAINEBLEAU— GALLERY OF HENRY II.

The brackets at the spring of the barrel vaults correct the unhappy proportion produced by the high and prominent wainscot.

component parts of his picture, only harmonious factors were considered; all discordant elements were carefully eliminated. The building of the palaces of St. Cloud and Versailles, with the Trianons, furnished ample opportunities for such artistic endeavor. To these works, accordingly, was devoted the best talent in designers, sculptors, modelers and ciselleurs that France possessed, in producing works of art in the shape of lanterns, chandeliers, brackets and candelabra that have been an inspiration to succeeding generations.

When oil, candles and gas were the light-giving mediums, the light was of necessity thrown upwards; with the introduction of electricity, however, a new factor entered the field. It became possible to throw the light downward, and to place it as near to or as far from the ceiling as might be desired. Of the results to be secured by either method, it may be said that wherever it is desired to get a concentrated light on any particular spot in a room it is best to turn the lights downward. This method is best for churches, libraries, dining-rooms, reading rooms of public libraries, counting and banking rooms and stores. It is also best for vestibules, narrow hallways and hallways of public buildings, when suspended fixtures are used, because in such places when the lights are turned upwards the light ray very fre-

quently impinges on the wall and is reflected and re-reflected many times before it reaches the floor. And the consequent loss by absorption in the wall more than counterbalances any gain from reflection. If a general diffusion of light throughout an apartment is desired, the light should be turned towards the ceiling to be reflected back again from above and by the side walls. This method will diffuse the light more evenly and satisfactorily throughout a room than turning the light downward, either directly or at a smaller angle. Electricity has rendered possible a method of lighting, called cove, or concealed lighting. This method of illumination is satisfactory only when used in conjunction with other fixtures, preferably standards, in large public buildings, in rotundas, assembly halls, and in churches of certain types; in domes, where the ring of concealed lights can be located within the drum, considerably below the actual spring of the dome. In locations other than those above mentioned, concealed lights are hardly to be recommended, because of the moonlight effect which they produce.

Lamps placed along the cornice molding near or at the spring of an arch in barrel-vaults and domes, create, by the heat which they radiate, an upward flow of air which continually draws dust into its current, and in time causes a black fan or brush-shaped apparition of dirt to appear directly above the lamp. Of the various types of fixtures, ceiling lights close to the ceiling are best adapted to small vestibules, in which case swinging doors are generally a determining factor. Lights close to the ceiling are also the most suitable type

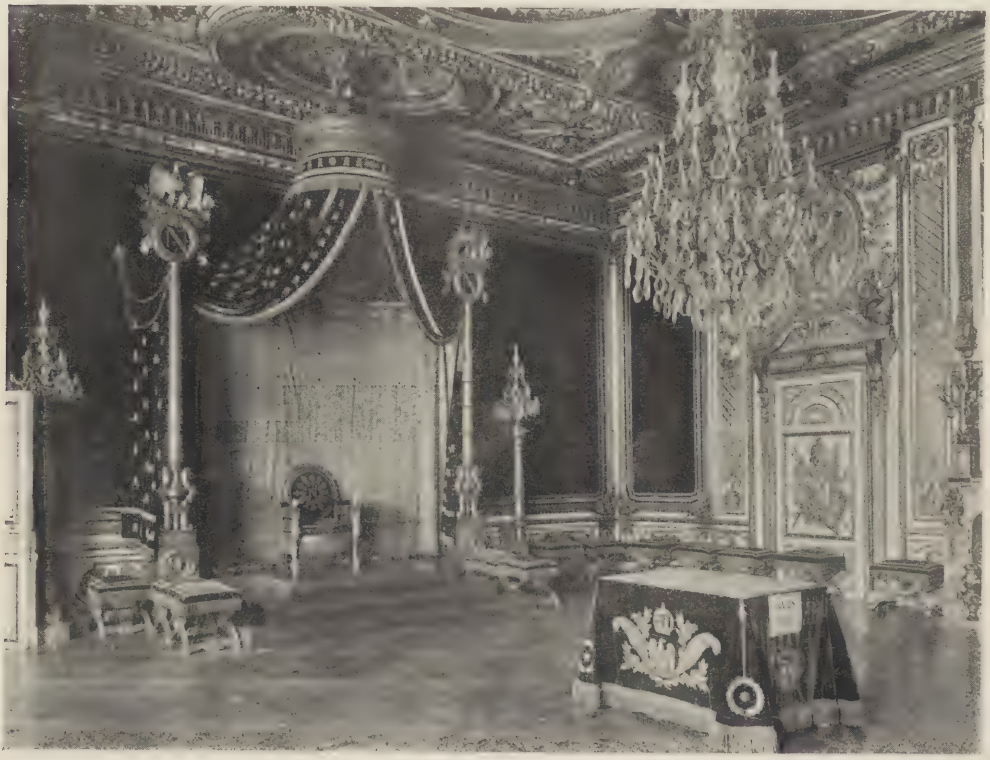


FIG. 8. PALAIS DE FONTAINEBLEAU—THRONE ROOM.

Gueridons with cluster lights are here used to brilliantly light the throne and its occupant and to throw them into strong relief against the rich background, the simplicity of which adds much to the majesty of the room.



FIG. 9. PALAIS DE FONTAINEBLEAU—THE HALL OF TAPESTRIES.
The bracket lights are admirably placed in the long upright panels and emphasize the great width of the chimney breast.



FIG. 10. PALAIS DE FONTAINEBLEAU—COUNCIL ROOM IN APARTMENTS OF LOUIS XV.



FIG. 11. PALAIS DE FONTAINEBLEAU—HALL OF THE GARDES.

This room is a rare French example in which chandeliers are suspended in one line down its centre. As the chimney breast is off centre, it was perhaps impossible to find any other satisfactory arrangement for these suspended lights.



THE COLONNA GALLERY, ROME—THE GREAT HALL (1572).

The chandeliers are admirably placed in this gallery. Hung at two different heights in

for halls, and for interior halls with rooms opening off on opposite sides. In formal rooms a sense of great length may be attained by treating the several compartments as one, if the lighting fixture in the central room of the suite is kept close to the ceiling. Nothing is more incompatible with the attainment of this end than the suspension, as is frequently found, of three different types of chandeliers in the direct line of vision from one apartment to the other. The best lighting effect for general purposes is to be attained by using side brackets to light the walls, and ceiling lights to generally illuminate the upper parts of the rooms; the resulting effect is one of formal dignity, with great depth and spaciousness.

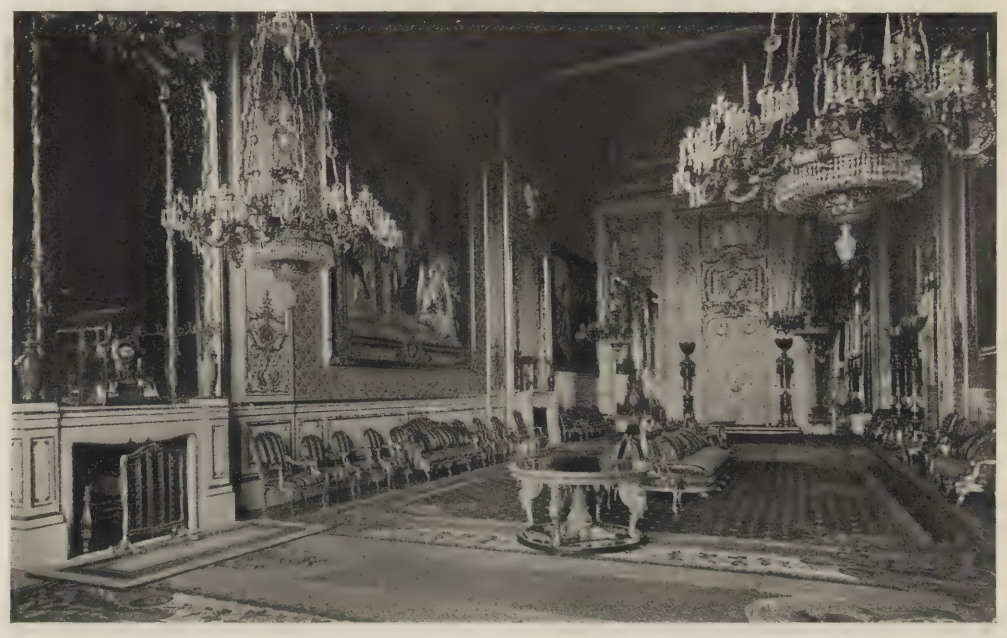


FIG. 13. THE GRAND RECEPTION ROOM, WINDSOR CASTLE.
The chandeliers are too large in spread. They would harmonize better with their surroundings if they were smaller and more compact in mass.

Ceiling fixtures used in connection with brackets are best for lighting theatres, music halls and public building generally. Used alone, ceiling fixtures have a tendency to produce on an audience the sensation of being in a tomb. When used in theatres they are entirely satisfactory, for the main ceiling of the auditorium when four are used, disposed as the decorations of the ceiling may permit. When, however, the decoration takes the form of a large central panel, either round or oval, the lights should be placed rather closely around it, so as to get an even distribution of light over the whole surface. In the latter case the best result can be obtained by enclosing the lights at each outlet in a glass sphere, the upper half of which is so moulded as to throw the rays of light along the panel, while the lower half deflects the rays coming through it directly downward into the body of the house. Ceiling lights in theatres should, however, be supplemented by brackets on the walls, preferably in the rear of the house. Lights should not be placed along the underside of the balconies, as they are apt to be annoying to those sitting behind them. A more satisfactory arrangement is to place them along the face of the balcony, somewhat below the lower edge of the handrail. We cannot say what place the designers of the Bourbon period in France would have

given to ceiling fixtures in their well-balanced compositions. The ceiling fixture is strictly a modern innovation, based upon freedom from limitations which the invention of the electric light has removed.

Chandeliers, generally speaking, are best adapted for salons and formal rooms, rooms not intended to be connected with or thrown into one another. If the rooms to be lighted are small, like many of the salons at Versailles or the Trianons, with mirrors on two or all four walls, the reflection of the central chandelier in the glasses adds much to the sense of largeness of the apartment. The French designers of the Bourbon period were pastmasters in the use of this device. Chandeliers when so used are usually almost entirely of glass. The use of this material avoids the sense of heaviness that would be produced by the duplication and reduplication in the mirrors of a number of brass or gilt chandeliers. Glass also avoids the sense of hardness that would be caused by the reflection and re-reflection of a brilliantly lighted mass of metal. Again, the glass prisms take up and reflect the colors of the side walls and decorations of the room and carry these colors into the centre of the picture.

Chandeliers, as a means of lighting churches, are not particularly satisfactory when hung in the centre. One feels, on looking at the enormous corona chandeliers in many mediaeval churches, as if the churches were built to house the chandeliers rather than to receive light from them. Practically and artistically this type of fixture, when used in churches, is at its best hung in two lines down the church, parallel with the walls of the nave, as in the Cathedral of Notre



FIG. 14. PALAZZO PITTI—A ROOM IN THE ARAZZI APARTMENTS.
The chandeliers are too large and are badly placed. The one on the right almost obstructs the view of the picture behind it.

Dame de Paris (Fig. 3). The advantage of this method of hanging holds good, in fact, for almost any large apartment of greater length than breadth. The arrangement is used to good effect in the Gallery of Henri II at Fontainebleau (Fig. 7), in the foyer of the Opéra in Paris (Fig. 5), and by the Italians in the Grand Salon of the Colonna Gallery at Rome (Fig. 12). Chandeliers suspended in this way do not interfere with the decorative treatment of the ceiling. They do not come as blots in the center of the room; but if properly colored and toned to harmonize with their surroundings, fall in as part of the scheme of composition. In certain apartments, such as salons, music halls, dining-rooms and rooms worthy of more than ordinary consideration, chandeliers should not be suspended on a bare metal rod; where possible, this should be covered with a silk cord, of a color and tone to take up and match the color of the draperies, which is thus carried into the center of the room, in the case of a central chandelier; while in the case of four corner suspensions, there is obviated the disagreeable effect of a hard line of metallic light cutting across pictures and draperies.

Brackets are more generally used as a method of lighting apartments than any other type of fixture. They are, properly speaking, the high lights in the decorative treatment of a room. They arrest the attention, and, if of sufficient artistic merit, arouse the interest and command admiration. The French, more than any other people, seem to have realized to the fullest the varied possibilities of this type of fixture. For this reason they lavished upon it the concentrated effort and highest artistic skill of their designers, sculptors and ciselleurs. The use of brackets as objects to break a possible monotony of wall space is well illustrated in the Gallery of Battles at Versailles. In this long gallery they are placed on the uprights between the pictures, projecting some distance into the room; they emphatically divide the pictures, taken as a whole, into separate panels, avoiding a panoramic effect that would be wearisome and that was not intended, as the pictures represent unconnected scenes, and these projecting brackets distinctly mark the divisions. In the gallery of Henri II, in the palace of Fontainebleau (Fig. 7), they serve another purpose. This room has arched recesses, or bays, opening off on opposite sides. The spandrils over the piers between these bays have figure decorations by Primaticcio, colossal in size, and vigorous in action. The small rectangular panels in the spaces just below the spandrils contain stands of armor and flags. This latter work seems poor and thin by comparison with the voluptuous figure work of Primaticcio. On the molding between these two decorations, far-projecting bracket lights have been placed. These fixtures are of such size and interest that the eye is held for an instant between the spandril and the panel, and the mind is diverted from the discrepancy in decoration above referred to. These brackets serve yet another purpose. When Primaticcio undertook the decoration of this room he was dominated by the same spirit that animated nearly all the painter-decorators of the contemporary Italian school, namely, to cover with decorations as much of the wall space as possible. We accordingly find the decorations brought down into the room as far as the top of the paneled dado. If we divide the height of this room approximately into seven parts, we find the dado occupies two—the rectangular panel, with its frame two more, and the superincumbent spandril decoration the remaining three parts of the height. Above is the heavy ceiling, with its deeply recessed coffers. What is there to support this? Surely not an expanse of flat wall decoration, resting on a paneled dado. If we can imagine these branching bracket lights removed, the double corbelled brackets shown are lost in the surrounding decoration, and we have a great expanse of decorative wall space reaching from ceiling to dado, interesting as decoration, it is true, but unrelated to and not performing any specific architectural office in the room. In this case the real supporting member, as far as the eye is concerned, is the totally inadequate dadoed portion of the

pilaster below. On the other hand, considering the room as it is with the boldly projecting brackets in position, the double corbelled bracket is emphasized, the eye lifted to this point, and bracket and branching lights become, as it were, a capital. The decorated panel and the dado below are drawn into one, and become a pilaster or column twice the height of the dado, and these columns thus formed are of sufficient height to carry the connected spandrils above. The spandrils then act as a frieze, and we have the ceiling aesthetically supported by the columns and the frieze. The chandeliers in this room contribute very much to the sense of great depth which one feels on beholding it. Hung from the top of the bays they arrest and interest the eye of the spectator, and so prevent his mind from wandering off into these arcades. They continue the hall across these openings, and so make the large central apartment seem much larger than it is.

Brackets used in conjunction with chandeliers or ceiling lights tend to eliminate all shadows, and to light an apartment evenly and brilliantly.

Candelabra are best suited to vestibules, long corridors and rooms in which it is desired to leave large unbroken stretches of wall space, a requisite at times in the creation of an effect of great dignity. The French form of candelabrum used during the seventeenth and eighteen centuries was called a gueridon. It took the form of a tall shaft, with trifooted base; on its top a cluster of lights was placed. A purpose for which it is well adapted is illustrated in the Hall of the Throne at Fontainebleau (Fig. 8). In this instance we find the throne itself thrown into bold relief by the rich monochrome background. This background is unbroken by pictures or other objects, save only the gueridons whose superposed clusters of lights deepen the shadows and the mystery which lurks in the canopy over the throne, and add largely to the light which falls upon the throne from the chandeliers.

This article is too short to enter into a lengthy discussion of the synthetical side of our subject. It may be well, however, to enunciate some of the clear-cut differences of which the various types of fixtures partake, considered from the standpoint of their inter-relation with the various parts of a room—the mouldings, the chimney-piece, possibly a plate rail, the various movables and the decorative objects that go to complete the furnishings. Generally speaking, we may say that ceiling fixtures by themselves illuminate the upper half of a room and lead the eye upward, giving a sense of added height to the room. They accentuate the horizontal mouldings, casting the shadows naturally and downward, throwing projections, mouldings and modeled objects into bold relief through contrast with the under shadows. Upright members and vertical mouldings have wide shadows near the floor. The shadows cast by ceiling fixtures, while not as strong as those cast by brackets, are stronger than those cast by chandeliers.

Chandeliers strongly illuminate the central horizontal planes of a room. Objects and wall spaces above and below it are both about equally lighted. In contrast with a room lighted by a ceiling fixture of equal light-giving power, a room lighted by a chandelier will seem lower, shadows are thrown backwards, away from the source of light and the center of the room towards or into the wall, and so are much less prominent than those cast either by ceiling fixtures or brackets. Objects are apparently flattened, and sink into their background through lack of strong contrast with it. Bracket fixtures accentuate the perpendicular lines of a room more strongly than either chandeliers or ceiling lights. They cast the shadows of objects on contiguous walls along their surface. One side of an object is thrown distinctly into shadow in strong contrast to the opposite side which, relatively, is brilliantly lighted. Brackets, moreover, bring the different wall planes into bolder relief; placed on pilasters or in panels between them, the effect in either case is to cause the panels to recede and the pilasters to advance. With this type of fixture, the shadows cast in many rooms cover a greater superficial area than the

objects that cast them, giving a predominence of shadow, and consequently an added sense of depth.

A few suggestions as to the placing of lighting fixtures may not be out of place here:

Ceiling fixtures may be advantageously disposed as follows: Two outlets in middle of ceiling, one at either end; one center outlet and two ends; four corner outlets; one in the center and four at the corners; arranged in a circle closely spaced; in an ellipse closely spaced; in an ellipse and one center; in an ellipse and two inside ends; in an ellipse and four corners; and in a square room in a circle and four corners. In rooms rectangular in plan, and of some length, ceiling lights are best placed parallel to the long diameter in two rows. The most satisfactory examples of this arrangement are spaced out from the wall one-fifth of the room's shorter diameter.

Brackets should be placed in uprights, in pairs where possible, as shown in many of the illustrations accompanying this article. It is best to place them on the uprights so they can be centered on some supporting member. The Hall of Battles (Fig. 6) and the Hall of Mirrors at Versailles (Fig. 3) are notable examples of apartments lighted exclusively in this way. In the Salon of Tapestries (Fig. 9) they are admirably placed in pilasters beside the mantel. They should never be placed on tapestry covered walls. When such placing is imperative the brackets should be placed beside some large picture so that they can, as it were, attach themselves to the moulded frame. This also holds true for placing them on walls covered with paper, particularly a monochrome paper. Bracket fixtures should not be allowed to float detached in a sea of color.

Chandeliers may be placed in the center of a room or in the four corners. When the chimney breast has great projection they may be placed in the four corners and in the center of an approximately square room. They can be placed to advantage in a line down the center of the room when the chimney breast is off center, as in the Hall of the Guards at Fontainebleau (Fig. 11), a room too heavy in character of detail to be lighted by brackets alone. When the apartment is one of great length, with possibly a decorated ceiling, they can be placed in two lines down the room parallel to the walls.

It is to be remembered that the possibilities enumerated above are possibilities of position, and should be taken into account when locating the fixture outlets. Care exercised in this matter, according to the principles briefly outlined in this article, will have considerable bearing upon the play of light and shade, contrast of color and the general decorative effect of the room. The careless placing of fixture outlets may destroy in great measure the most beautiful interior decoration.

Before leaving our subject it might be well to say a cautionary word about the size and diameter of chandeliers. Observation on this point extending over a number of years leads the writer to the conclusion that the tendency is to make them proportionately too large, and too great in diameter for the rooms in which they are to be placed. The chandeliers in the apartment of the Arazzi in the Pitti Palace at Florence (Fig. 14) are too large in diameter and too heavy in mass. This is also true of those in the grand reception room at Windsor Castle (Fig. 13). The French seldom err in this respect. Back of all traditional basis of proportion they seem to possess an additional sense of the true relation of fixtures to their environment, a sense which is requisite to success in the practical expression of any interior composition.

David Crownfield.



THE AVENUE DE L'OPERA FROM THE ROOF OF THE OPERA HOUSE.

Baron Haussmann and the Topographical Transformation of Paris Under Napoleon III.

IV.

The Deuxième and Troisième Réseaux.

The Deuxième Réseau.

When the transformation of Paris was undertaken, at the commencement of the Second Empire, it was obvious to all that the first necessity was to clear up the center of the old city, which as we have seen, was dominated by the Ile de la Cité and the Grande Croissée. In the study preliminary to the arrangement of the Premier Réseau undoubtedly the entire task was considered, but, quite naturally, the Emperor felt some timidity in presenting so large a scheme to the public at that moment. Moreover, until the earlier part of the work had been completed it could not appear precisely what the later part should be. For these two reasons mainly, a considerable portion of the improvement which properly belonged to the Premier Réseau was actually provided for under the Deuxième and Troisième Réseaux.

The Deuxième Réseau arranged itself in the same way. In general, it was intended for the improvement of the region between the first and second lines of boulevards; practically, it was forced to include much that was suggested, but not accomplished under the Premier Réseau, and to pass on to the Troisième Réseau a large amount of its own unfinished work.

Technically the Deuxième Réseau included only the improvements authorized by the "Traité" dated March 18, 1858, between the state and the city, which provided 180 millions of francs—one-third contributed by the state and two-thirds by the city. The first article of this "Traité" specified in nine paragraphs the improvements which were to be executed. In describing the work we shall follow the official arrangement.

The Place de la République and the Eastern Faubourgs.

The first paragraph of the "Traité" of 1858 provided for the reconstruction of the Place du Château d'Eau, now de la République, and for laying out the streets radiating from it.

One familiar with the history of Mediaeval Paris will recall that the angle made by the Boulevard du Temple with the Boulevard de Saint-Martin occurs just outside the space originally occupied by the fortified enclosure of the Temple, but still within the vast territory originally controlled by that order, which continued to be, until a late period, open farming country. Even as late as the time of the publication of Verniquet's map, 1791, there was a bit of open land at this point which was in the same condition as the rest of the Grand Boulevard. The people used it as a common. During the reign of the first Napoléon the authorities undertook to better conditions, and in 1810 a large fountain was built here which received its supply from the Bassin de la Vilette. This "fontaine géante" was, of course, not a château d'eau, but the people gave it that name on account of its size.

The plan of Bullet and Blondel, published in our first article, places a conventional "rond point" at this intersection; but the elastic mind of Haussmann perceived that, while a "rond point" was practicable, it was not the best solution of the problem. An elongated quadrangle resting on the obtuse angle formed by the Boulevards de Saint-Martin and du Temple would be much more satisfactory. The Place de la République as it stands to-day with the great statue of the Republic (inaugurated July 14, 1883)

and other decorations, justifies fully the choice of the designer.

The arrangement of streets entering the Place de la République, is simple. The Boulevard du Nord, now Magenta, leading to the Gare de l'Est and the Gare du Nord, is drawn to balance the Boulevard de Saint-Martin; the Avenue des Amandiers, now de la République, leading to Père Lachaise is drawn to balance the Boulevard du Temple. It is interesting to note at this point, that Haussmann could not induce his associates to include the Avenue des Amandiers in the scheme of the Deuxième Réseau. It was passed over to the Troisième Réseau.

The Place du Château d'Eau, now de la République, was so drawn that its main axis is in line with the center of the Place du Thrône, now de la Nation. A great street in the line of this axis, and bisecting the angle made by the Boulevard du Temple and the Avenue des Amandiers, making superb connection between the Place de la République and the Place de la Nation, was built and called the Boulevard du Prince Eugène, now de Voltaire. The Rue de Turbigo, begun under the provisions of the Premier Réseau, was completed to balance the old Rue du Faubourg du Temple on the other side of the Place.

The operations of the Premier Réseau drove the laboring classes out of the slums into the faubourgs. A considerable part of this population drifted into the eastern faubourgs, de Saint-Antoine and du Temple. The Place de la Bastille provided a suitable breathing place for the Faubourg de Saint-Antoine. The new place was intended to accomplish the same result in the Faubourg du Temple.

The work of Haussmann about the Place de la République is the most characteristic and personal which he has left us. Almost everywhere else his large operations were conditioned by something which his predecessors had done, and which he wished to respect. This had been the case throughout the Grande Croissée and was to be more noticeably so in later operations. The Faubourg du Temple, on the other hand, was maiden; apart from the slight suggestion of Bullet and Blondel, nothing had been considered, and Haussmann might do as he would with the region. In the Place de la République he showed his sense of the beautiful and monumental perfectly. He also showed his economic appreciation of reasonable utilities. All the streets about the Place de la République are not only fine in profile and perspective, they are also the most economical and useful, which could have been contrived. They belong, without exception, to Haussmann's favorite type of "voies diagonales" which shorten distances, and provide those excellent corner lots which Parisian architects delight in.

How helpful some of Haussmann's "voies diagonales" would be in New York. We have only Broadway, and, so far, have not made any intelligent use of that one opportunity.

In 1799 the "Sieurs" Solage and Bossu proposed to bring the river Ourcq by canal to Paris. The canal was built and deposited its waters in the reservoir called de la Vilette. From this there were constructed navigable channels, northward to Saint-Denis, and southward to the Bassin de l'Arsenal. The southern branch, called the canal Saint-Martin, passed through an arch under the Place de la Bastille, but for the rest of its course it was an open excavation. The canal Saint-Martin was finished and opened in 1826. Haussmann transformed its deeper portion, from the Avenue de la République to the Place de la Bastille, into a continuous subway, and over it built the Boulevard de Richard Lenoir, one of the broadest streets of Paris, through the central parterres of which light and ventilation were introduced into the canal below.

After the destruction of the Bastille, July 14, 1789, the region about the old ruin remained in a condition of extreme devastation until 1811, when the first Napoléon ordered the erection here of a fountain, the chief feature of which should be an enormous elephant cast in bronze furnished by the cannon taken at Friedland. The bronze was never executed, but the plaster cast of the elephant stood in the Place de la Bastille for many years; even until after the erection of the Colonne de Juillet, which was built

between 1830 and 1840 to commemorate the taking of the Bastille and the "Trois Journées Glorieuses" of the Revolution of 1830. This monument was begun by

main by way of the Pont-Sully, completed in 1876.

The old Place du Thrône owed its name to the throne which was erected



FIG. 1. MAP SHOWING THE MAIN LINES OF THE VOIRIE OF PARIS, INCLUDING HAUSSMANN'S LARGE OPERATIONS—WESTERN PART.

Alavoine, completed by Duc, and decorated with sculpture by Barye.

Only the completion of the Bastille ensemble was left to Haussmann. His most important addition being the Boulevard Henri Quatre which connects the Bastille with the Boulevard de Saint-Ger-

here on the occasion of the triumphal entry of Louis XIV. and Marie Thérèse of Austria, Aug. 26, 1660. Ten years later a large triple triumphal arch finely designed by Claude Perrault was erected in plaster, on the site. This disappeared in 1716. The two columns which ac-

companied the arch were carried out in stone in the reign of Louis-Philippe and still stand at the eastern entrance to the Place. The irregular opening in which



FIG. 2. EASTERN PART OF MAP SHOWN IN FIG. 1.

the plaster arch stood, was transformed during the reign of Louis XIV. into a conventional "rond point" to correspond to the Place de l'Etoile on the other side of the map. Haussmann finished the Place and the circle of radiating streets to carry out the intentions of the designers. The Boulevard Diderot had been begun, if it was not finished, in the reign of Louis-Philippe. The Boulevard Voltaire we have already considered. The Avenue Philippe-Auguste and the little

avenue Dorian and the Rue Fabre d'Eglantine were built under the provisions of the Troisième Réseau.

Avenue Daumesnil.

The second paragraph of the "Traité" of 1858, which created the Deuxième Réseau, was entirely concerned with the Avenue Daumesnil, a long street 33 mètres wide which runs from the Rue de Lyon near the Bastille to the southern sides of the rhomboid lot on which the building stands; the Rues, Auber and Halévy. Of the two streets defining the northern sides of the rhomb, of the Place de l'Opéra itself, and of the magnificent triple arrangement of avenues south of the Place de l'Opéra nothing was said. All this was left for the Troisième Réseau. However, as it is our policy to hold to the topographical arrangement rather than to the official



FIG. 3. PLACE DU CHATEAU-D'EAU.
(From an old print.)

western corner of the Bois de Vincennes; a useful avenue, but not especially interesting topographically.

The Opéra and the Quartier de l'Europe.

The third paragraph of the "Traité" of 1858 provided for the emplacement of the Opéra and the improvement of the Quartier de l'Europe, or the region about the Gare de l'Ouest. It surprises one to see with how much caution the administration of the Second Empire approached the problem of the emplacement of the Opéra. The "Traité" of 1858 provided only for the two streets which define the order of construction, we will consider the emplacement of the Opéra at this moment. With the building itself, of course, we are not now concerned.

When Louis XIV. built the Place Louis-le-Grand or Vendôme its north and south axis was drawn in line with the church of the old Capucine monastery and at right angles to the Rue de Saint-Honoré. There were short streets leading from the Place Vendôme to both these points. The first Napoléon completed these openings. The northern street became the Rue de Napoléon, since 1814 Rue de la Paix, leading obliquely

into the Boulevard des Capucines. The southern street became the Rue de Castiglione leading obliquely into the Rue de Rivoli.

The intersection of two such great streets as the Boulevard des Capucines and the Rue de la Paix naturally produced a considerable opening, which, as we saw in our third article, is at a point very near the actual center of the city which is at right angles to the Boulevard des Capucines, bisects the angle formed by the Rue de la Paix and the Rue Réaumur (now called, as far as the Bourse, the Rue du Quatre-Septembre to commemorate the establishment of the present republic, Sept. 4, 1870), and leads directly to the Place du Théâtre Français. A great avenue in the line of this axis followed as a matter of course.



FIG. 4. VIEW FROM THE ARC DE TRIOMPHE, SHOWING ONE OF THE SINGLE HOUSES IN THE PLACE.

of Paris. There could have been no better location for a building like the Opéra.

When in the completion of the Premier Réseau, Haussmann built the Rue Réaumur, he drew its plan so that it should not only open up the Place de la Bourse, but should also meet the Boulevard des Capucines at the same point, and at about the same angle as the Rue de la Paix on the other side. Fortunately for the beauty and symmetry of the plan of Paris, the axis of the Opéra,

The Avenue Napoléon, now de l'Opéra, is a perfect modern French street; not too long, spacious, well built and furnishing axial vista to a fine symmetrical monument. This is the culmination of the classic scheme of axial symmetry, conceived in the Hellenic period, more perfectly suggested in the Roman, carried a little farther in the Renaissance, fully understood by the Bourbon designers in France and brought to an ideal and complete realization by Haussmann in the Avenue de l'Opéra.

The Avenue de l'Opéra differs from the other great streets of Paris in not having trees along its course. In American cities a street acquires beauty and distinction by the planting of trees; in Paris this result may be secured by doing without them. The architecture of a street may be so fine that foliage conceals and does not add to its beauty. Garnier felt that this result had been accomplished in the Opéra and insisted that the view of his façade should not be obstructed.

The Quartier de l'Europe, as the region about the Gare de l'Ouest (Saint-Lazare) is called, was included with the Opéra under the third paragraph of the "Traité" of 1858. It had been reconstructed in 1826. There was little for Haussmann to do beyond adapting it to the introduction of the railway station.

The Boulevard Malesherbes.

The fourth paragraph of the "Traité" of 1858 was exclusively concerned with the construction of the Boulevard Malesherbes.

That a street was needed to balance the Boulevard de la Madeleine on the axis of the Rue Royal, became apparent very early. It was a favorite project of the first Napoléon. A rudimentary street was formed here which was intended to take the general direction of the Rue du Général Foy. Haussmann enlarged the street to an equivalence with the Boulevard de la Madeleine and named it, as the original street had been named, after Chrétien-Guillaume de Lamoignon de Malesherbes, the great statesman of the reign of Louis XVI. who endeavored so earnestly to avert the destruction of the Monarchy. In order to reach the Parc de Monceau and the Porte d'Asnières he deflected the Boulevard Malesherbes slightly at its intersection with the Rue de la Pépinière and the Boulevard Haussmann, providing an interesting site and axial vista, to the rather commonplace church of Saint-Augustin



FIG. 5. PLACE DE LA REPUBLIQUE.


FAUBOURG St ANTOINE
et
CANAL St MARTIN
en 1824
Echelle de
Cimetiere du Pere-la-Chaise
Place du Trone
Rue de Charonne
Rue de Montreuil
Rue de Reuilly
Rue de Picpus
Rue de Bercy
Rue de Charenton
Rue de Lyon
Rue de Cotte
Rue de Wattigny
Rue de Prouvaires
Rue de Bel Air
Rue de Rambouillet
Rue de Traverse
Rue de Cendrier
Rue de Chemin Vert

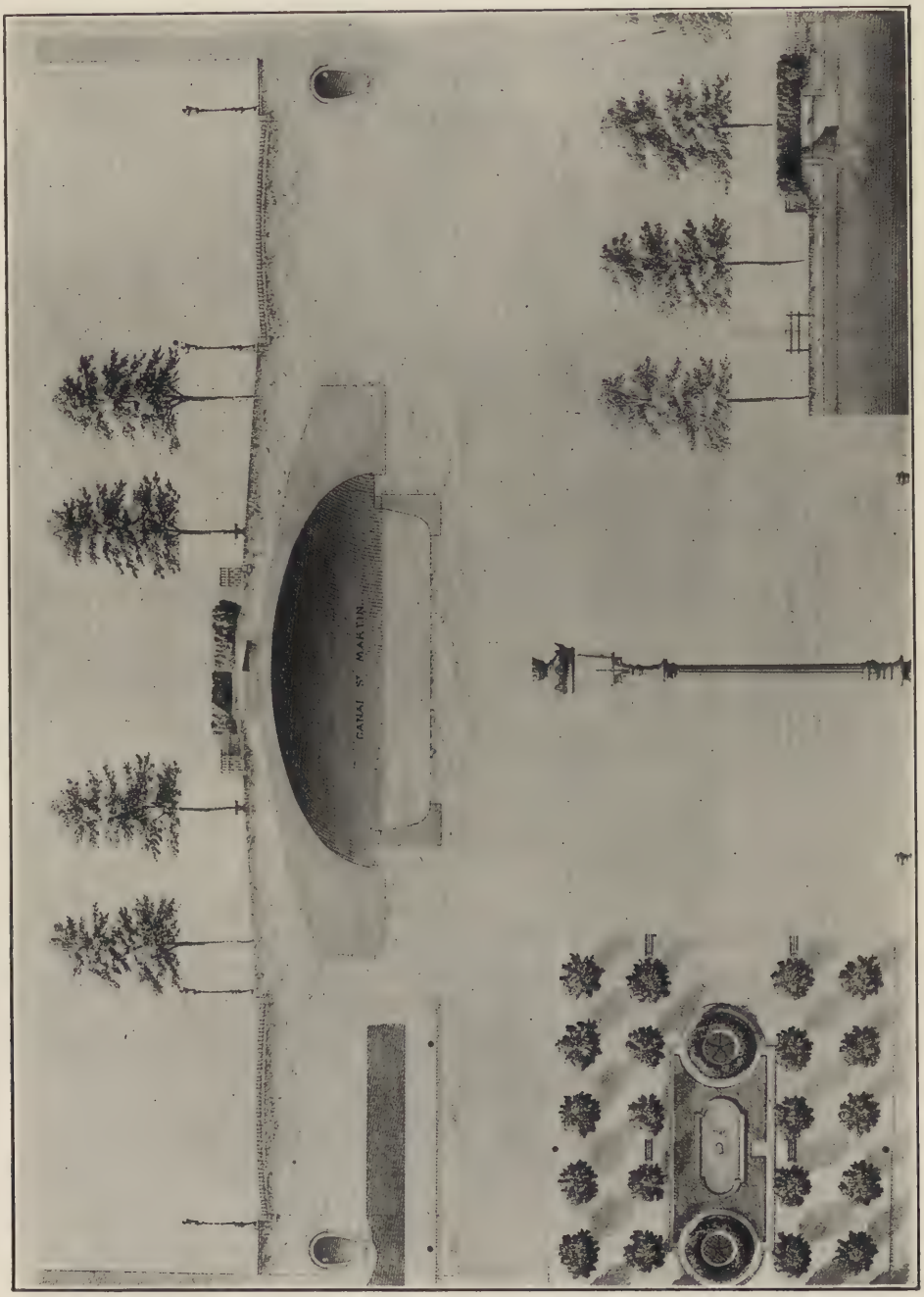
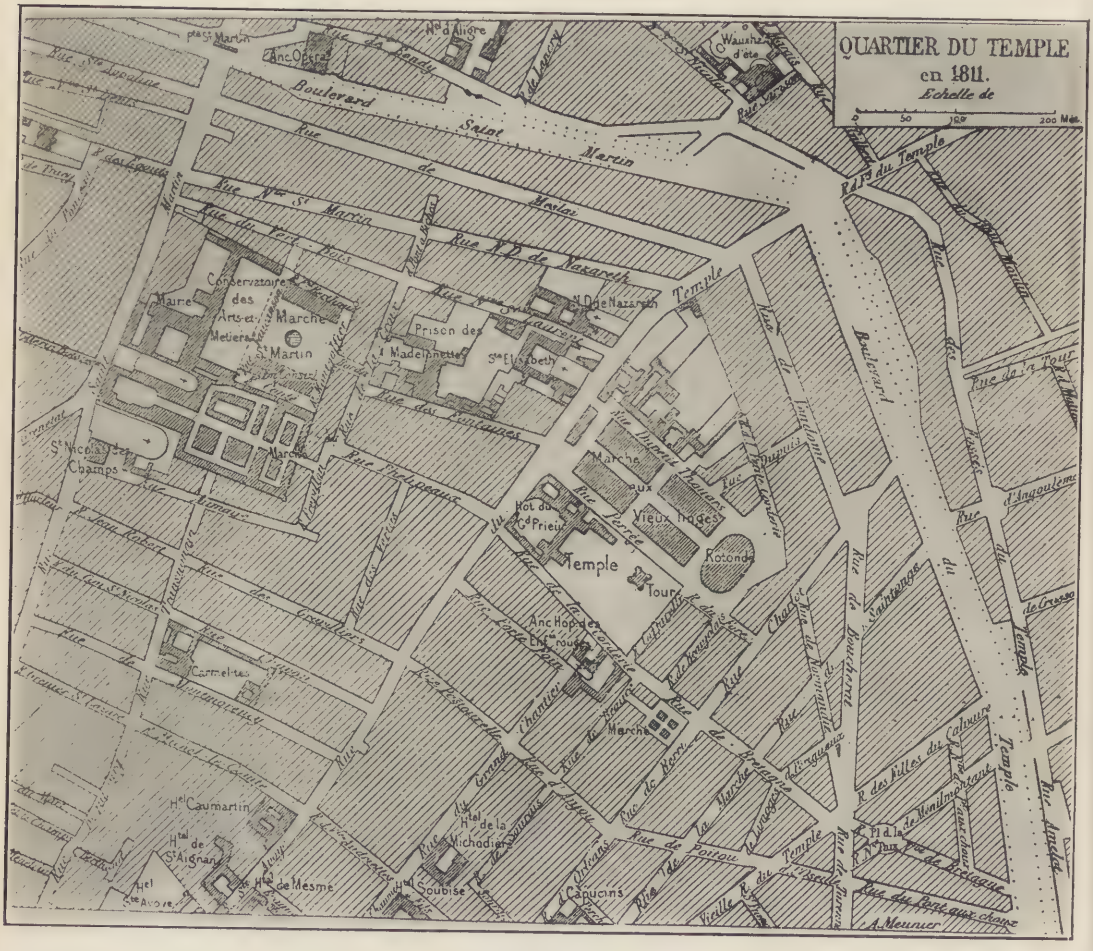


FIG. 7. PROFILE AND DETAILS OF THE BOULEVARD RICHARD LENOIR.

which was built under his direction. Beyond the Parc de Monceau he treated the Boulevard Malesherbes as a "route départmentale." In this region he was immensely encouraged and assisted by the action of a group of speculators who surrendered to the city gratuitously 82.625 square mètres of land which was undoubtedly profited financially by their broad-minded action.

The Boulevard Malesherbes is as characteristic of Haussmann as is the Boulevard Saint-Germain. His brilliant intelligence accepted reverently all that the past could give him, and went on in the direction indicated, rapidly and boldly,


QUARTIER DU TEMPLE
en 1811.
Échelle de
50
100
200 Mèt.
Boulevard
Saint
Martin
Rue
de
Temple
Rue du Temple
Rue de Vieille du Temple
Rue d'Angoulême
Rue du Grand Prieuré
Rue des Filles du Calvaire
Rue Amelot
Rue des Fontaines du Temple
Rue de Turbigo
Rue de la Corderie
Rue Rambuteau
Rue de la Perle
Rue Neuve St Martin
Rue du Petit Thouars
Rue N.D. de Nazareth
Rue de Montmorency
Rue Pastourelle
Rue de Braque
Rue de Saintonge
Rue de Normandie
Rue de Poitou
Rue de la Verrerie
Rue du Chaume
Rue de la Croix
Rue des Archives
Rue Vieille du Temple
Rue des Rosiers
Rue des Coutures St Gervais
Rue des Blancs Manteaux
Rue des Francs Bourgeois
Rue des Quatre Fils
Rue Simon le Franc
Rue Michel le Comte
Rue Chapon
Rue Beaubourg
Rue Quincampoix
Rue Aumaire
Rue Volta
Rue Meslay
Rue Montmorency
Rue Portefoin
Rue Ste Avoye
Rue du Temple
Rue Transversale
Rue Neuve Ste Catherine
Rue Neuve St Merry
Rue Ste Croix de la Bretonnerie
Rue du Plâtre
Rue Ste Appoline
Rue Ste Anastase
Rue du Pont Neuf
Rue de la Monnaie
Rue de la Ferronnerie
Rue de la Cossonnerie
Rue de la Vannerie
Rue de la Tixeranderie
Rue de la Mortellerie
Rue de la Coutellerie
Rue de la Juiverie
Rue de la Barillerie
Rue de la Lanterne
Rue de la Huchette
Rue de la Harpe
Rue de la Parcheminerie
Rue de la Bûcherie
Rue de la Huchette
Rue de la Calandre
Rue de la Vieille Draperie
Rue de la Vieille Lanterne
Rue de la Vieille Monnaie
Rue de la Vieille Bouclerie
Rue de la Vieille Pelleterie
Rue de la Vieille Tannerie
Rue de la Vieille Boucherie
Rue de la Vieille Poterie
Rue de la Vieille Ferronnerie
Rue de la Vieille Cordonnerie
Rue de la Vieille Tonnellerie
Rue de la Vieille Verrerie
Rue de la Vieille Vannerie
Rue de la Vieille Tixeranderie
Rue de la Vieille Mortellerie
Rue de la Vieille Coutellerie
Rue de la Vieille Juiverie
Rue de la Vieille Barillerie
Rue de la Vieille Lanterne
Rue de la Vieille Huchette
Rue de la Vieille Harpe
Rue de la Vieille Parcheminerie
Rue de la Vieille Bûcherie
Rue de la Vieille Calandre
Rue de la Vieille Draperie


QUARTIER DE L'EUROPE
créé en 1826
PARC DE MONCEAU
Ancien Tivoli
Rue de Clichy
Rue de Constantinople
Rue de Naples
Rue de Londres
Rue de la Bienfaisance
Rue de Laborde
Rue de Courcelle
Rue de Monceau
Rue de Chartres
Rue de Rome
Rue de Stockholm
Rue de Vienne
Rue de Berlin
Rue de Tivoli
Rue de Lisbonne
Rue de Leipsick
Rue de Moscou
Rue de Madrid
Rue de Florence
Rue de Parme
Rue de Turin
Rue de Hanovre
Rue de Surène
Rue de Miromesnil
Rue de Téhéran
Rue de la Pépinière
Rue de la Ferme
Rue de la Boëtie
Rue de la Pologne
Rue de la Terrasse
Rue de la Bruyère
Rue de la Rochefoucauld
Rue de la Tour des Dames
Rue de la Chaussée d'Antin
Rue de la Rochefoucauld
Rue de la Rochefoucauld
Rue de la Rochefoucauld

shown its condition at the end of the eighteenth century as given in the plans of Verniquet and Perronet.

At the time of the advent of Haussmann the old Place had changed little. The map published in Batissier's edition of Dulaure (1846) shows the great "rond point" with the Avenue de Neuilly running through it and an avenue at right angles to this street running northward corresponding to the present Avenue de Wagram. Its continuation on the other side, the Avenue du Roi de Rome, now Avenue de Kléber, was interrupted by the old Hippodrome and came into the place on its eastern side. There were several little streets running irregularly into the Place de l'Etoile, the most important of which was the Route de Saint-Cloud or Avenue de Charles X., later called Avenue d'Eylau, and now Avenue Victor Hugo.

The fifth paragraph of the "Traité" of 1858 provided simply for one avenue to enter the northeastern quarter of the Place; the Boulevard de Beaujon, now Avenue de Friedland, and its continuation, the Boulevard Haussmann, nearly to the Boulevard Malesherbes. The Emperor had in mind a continuation of the Boulevard de Beaujon, on the opposite side of the Place to be developed as a "route départmentale" and to be called Avenue de l'Impératrice, now Avenue du Bois de Boulogne. Besides this and the completion of the Avenue du Roi de Rome, now Kléber, nothing was definitely determined when the Deuxième Réseau was formulated in 1858. The work was completed under the Troisième Réseau. In 1858 the Place de l'Etoile was in the Zone Suburbaine, as the region between the outer Boulevard and the Fortifications was called, and was not included in the city proper.



FIG. 10. BARRIERE AND ARC DE L'ETOILE IN 1854.

From such an irregular start Haussmann found it difficult to proceed to a symmetrical arrangement of the Place de l'Etoile which would satisfy all condi-

tions of the problem, and realize the evident intentions of the original designers. Beginning in the southwestern quadrant he gave to the Avenue de l'Impératrice, now du Bois de Boulogne, a narrow entrance into the Place to correspond to the Avenue de Friedland on the other side; which by the way is not on the same axis. Its distance from the Avenue de la Grande Armée gave him an interspace too small to be carried regularly around the circle. To meet this difficulty he repeated the first quantity in the space between the Avenue du Bois de Boulogne and the Avenue d'Eylau, now Victor Hugo. The remaining space between the Avenue de Victor Hugo and the Avenue de Kléber is twice as large as either of the other two. This gave him in the southwestern quadrant, be-

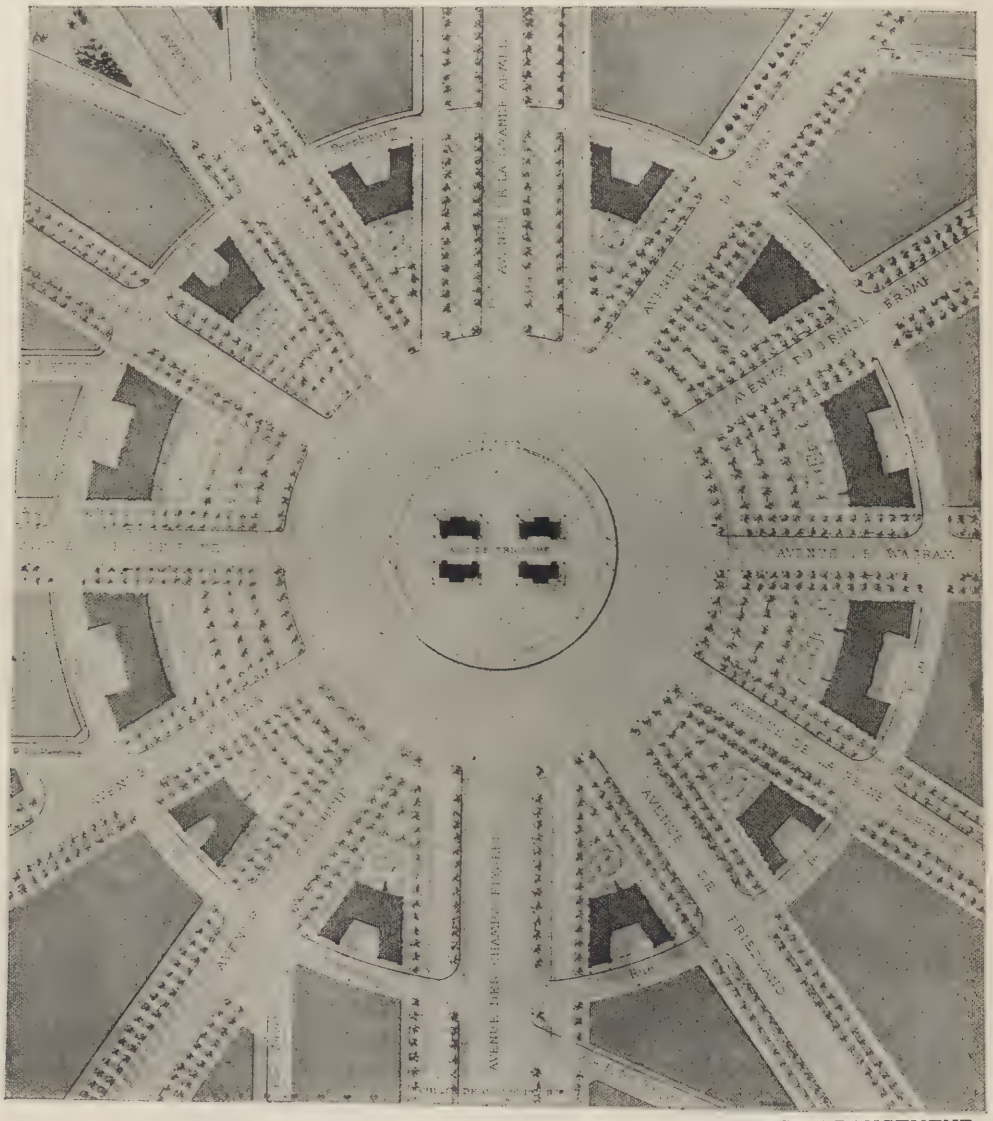


FIG. 11. PLAN OF THE COMPLETED PLACE DE L'ETOILE, SHOWING ARRANGEMENT OF SINGLE AND DOUBLE HOUSES.

tween the Avenue de la Grande Armée and the Avenue Kléber, two small lots and one large one; or as he succeeded in arranging the various quantities, two single houses and one double one facing the Place. He reversed the arrangement of the southwestern quadrant in the southeastern quadrant; and the arrangement of the southern half in the northern half of the circle. The resulting alternation places the small lots on either side of the Neuilly axis and the large lots on either side of the Wagram-Kléber axis.



FIG. 12. AVENUE DU BOIS DE BOULOGNE FROM THE ARC DE TRIOMPHE. ONE OF THE SINGLE HOUSES IN THE PLACE.

For a stellar arrangement, the twelve vast streets which enter the Place de l'Etoile are not ideal in direction and character, but Haussmann's clever study brings them to their termination in a perfectly harmonious and symmetrical manner. He was, of course, much assisted by the regulation imposing a uniform design (drawn by Hittorff and Rohault de Fleury) upon all houses in the Place de l'Etoile. The most important of the streets about the Place, the Avenue du Bois de Boulogne, called, during the Empire, Avenue de l'Impératrice, was conceived as an extension of the Bois de Boulogne, and like that park was at first placed in charge of the architect Hittorff, who showed an entire lack of appreciation of the opportunity offered. He amused Haussmann by proposing a typical boulevard 40 mètres wide. "Croyez-vous, Monsieur," said the Prefect, "que sa Majestie puisse se contenter de vôtre boulevard de 40 mètres . . . Monsieur, c'est le double, c'est le triple qu'il nous faut." This street of 120 mètres width, thus conceived in "un mouvement de vicacité," was constructed; the type form of all parkways. It was actually built, like the Avenue Victor Hugo, as a "route départmentale" and not under the provision of either of the réseaux.

Haussmann was himself especially pleased with the little circular street which he drew behind the houses facing upon the Place de l'Etoile, called Rue de Tilsit on the northern side and Rue de Presbourg on the southern side. It isolates the monumental residences and relieves the Place easily when it is crowded.

In the ensemble of the Place de

l'Etoile, Haussmann had before him the largest conception of the Bourbon designers. In his study and in its result, he showed his perfect appreciation of their work. If Le Nôtre himself had finished the Place de l'Etoile he would have made no different solution.

Trocadéro—Pont d'Alma Ensemble.

The sixth paragraph of the "Traité" of March 18, 1858, provided for two avenues of 40 mètres width, leading from the Pont de l'Alma; the Avenue de l'Alma and Avenue de l'Empereur, now du Trocadéro. The rest of the region was carried out under the provisions of the Troisième Réseau. The Trocadéro palace and park were built for the exposition of 1878. The improvement in this region completed the splendid quarter of Chaillot in the style established by the avenues radiating southward from the Place de l'Etoile.

The Invalides and Ecole Militaire.

The seventh paragraph provided for the Avenues Rapp and Bosquet, leading from the Pont de l'Alma southward to the Ecole Militaire ensemble and the Boulevard Latour-Maubourg to relieve the Pont des Invalides. This region of the two great military establishments had been thoroughly studied by the Bourbon designers. Haussmann's work was confined to making it more convenient.

It is rather strange that the designers of the Invalides in the time of Louis XIV. did not turn their main axis a little to the left, so that it should be in line with the Rond Point des Champs-Elysées and the later Pont des Invalides. Their failure to do so has made it possible for the present generation to give suitable emplacement to the Pont d'Alexandre III. and the two Palais des Beaux Arts.

The Faubourgs Saint-Jacques and Saint-Marcel.

The eighth paragraph of the "Traité" authorizing the Deuxième Réseau concerned a large region south of the Montagne de Sainte-Geneviève and the Luxembourg. This included the completion of the inner line of boulevards by the construction of the Boulevards Port-Royal and Saint-Marcel, the transformation of the southern portion of the Rue Mouffetard into the Avenue des Goblins, the construction of the Boulevard Arago, the Rues Claude-Bernard and Gay-Lussac, and, especially important, the Boulevard d'Enfer, now Raspail, which connects the Boulevard Saint-Germain with the Montparnasse region. It has been only recently completed.

Completion of the Premièr Réseau.

The ninth paragraph of the "Traité" of 1858 completed the work, made necessary, but not accomplished, by the operation of the Premièr Réseau. The Boulevard du Palais, the Bouelvard Saint-Michel and the much-contested little Rue de Médicis which cuts off the northeastern corner of the Luxembourg ensemble between the Odéon and the Rue Soufflot.

The Troisième Réseau.

Officially the Troisième Réseau included all the improvements provided for by the law of 1865, in which 500,000 obligations of 500 francs each brought in 270 millions of francs. Practically it included all the topographical improvements not provided for by the Premier and Deuxième Réseaux.

When Haussmann was made Prefect of the Department de la Seine in 1853 the entire population of the department was 1,410,063. Of these 1,053,262 lived within the Mur d'Octroi or second line of Boulevards, that is, in the city proper. There was a population of 233,792 in the Zone Suburbaine. The rest lived without the Fortifications, but still within the limits of the department. In 1860 the old barrière erected by Louis XVI. to assist in the collection of the city tariff was destroyed and the octroi line removed to the Fortifications, where it is to-day, increasing the revenues of the city considerably. The population within the Fortifications in 1860 was probably about 1,600,000.

The Troisième Réseau was intended primarily for the rectification of this added region, the old Zone Suburbaine; and developed here a large number of secondary streets, which it does not seem

necessary to describe in an ephemeral publication. All this work was done in Haussmann's clever, thorough way, according to types made familiar in the Premièr and Deuxième Réseaux. More to our purpose it is to call attention again to the provision which the Troisième Réseau made for the construction of streets suggested but not executed under the earlier Réseaux, but as these improvements have been noted in connection with the various topographical ensembles to which they belong, it is not necessary to review them in detail.

Several independent undertakings of first-rate importance carried out under the Troisième Réseau, must, however, be carefully noted. The Rue de Lafayette, begun in the reign of Charles X., acquired great importance from the emplacement of the Gare du Nord, and Gare de l'Ouest. It was completed by Haussmann under the provisions of the Troisième Réseau, and later continued by the Route (départmentale) d'Allemagne. These two together form a street of enormous length. The Rue de Lafayette is a "Voie diagonale," but was never entirely satisfactory to Haussmann. It is too long and narrow to be truly monumental.

The Rue du Cardinal-Fesch, now de Châteaudun, running from the Rue de Lafayette to the Rue de Saint-Lazare, improved the connection between the eastern stations and the Gare de l'Ouest, and disengaged the churches of the Trinité and Nôtre Dame de Lorette. The completion of the Rue Drouot continued the Rue de Richelieu to the Rue de Lafayette. The Avenue de Philippe-Auguste carried the Boulevard de Ménilmontant directly to the Place de la Nation. The Boulevards Saint-Germain and Henri-Quatre, described under the Premièr Réseau, were actually constructed under the provisions of the Troisième Réseau. The Rue de Rennes which connects the Gare de Montparnasse with the Boulevard de Saint-Germain was built under the Troisième Réseau, but not carried to a proper termination. One of the serious topographical problems which confront the Parisians of the present day is to effect a connection between the Rue de Rennes and the Rue du Louvre by a bridge near the Institut.

Routes Départmentales.

Many of the large streets of the Zone Suburbaine were not included in either of the three réseaux. They were charged in part, at least, to the Département de la Seine at large and called "routes départmentales." Good examples are the extensions of the Boulevard Malesherbes and the Boulevard de Villiers beyond the Place Malesherbes; the Avenues du Bois de Boulogne and de Victor Hugo beyond the Place de l'Etoile, which we have already considered. There are also the great ""routes imperiales," now "Nationales," leading out of Paris through the Département de la Seine.

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Note, art. IV.

The writer wishes to correct an error made in the second article in this series, in ascribing the Loi d'alignement to the first Napoleon.

The principle which underlies the determination not only of the width of streets, but also the relative height of buildings, is an old one in French law. It is embodied in many regulations, notably in edicts of Henry IV. dated 1605 and 1607 and in ordinances of the reign of Louis XV.; 1754 and 1755. It was given its full expression in a "déclaration royale" of Louis XVI. dated April, 1783. This is the fundamental Loi d'alignement for the city of Paris. Napoleon's law of 1807 applied the principle generally to the Empire.

The author was misled by repeated statements in Haussman's "Mémoires." This genial and informing book is the work of an octogenarian who did not always test his recollections and must be read with care.

Edward R. Smith,

Reference Librarian, Avery Architectural Library, Columbia University.

NOTES & COMMENTS

THE BEAUTIFYING OF JAMESTOWN N. Y.

The recently published report of Charles Mulford Robinson to the Park Commission of Jamestown, N. Y., is a plea for the improvement and beautification of the city on broad lines and with a long look ahead. It appears that there was a situation which presented Mr. Robinson with an unusual opportunity of which he was not slow to avail himself. Here was a little city, somewhat self satisfied, rather proud of its relative aloofness, charmingly situated, unspoiled on the one hand by a boom during the many years of its slow growth, but on the other hand with no park improvements or other conscious and serious effort at beautification to its credit. A few prominent men of the town had been appointed a park commission —the first that Jamestown had ever had; and an appropriation, which Mr. Robinson's report likens to a clerk's salary, was given to them with which to do things. The Park Commissioners asked Mr. Robinson to come to the city, look it over, and tell them what they ought to do. The result is a report of eight or ten thousand words that opened the eyes of Jamestown people. It minces no words, but if it came with something of a shock there was enough that was pleasant in it to please the people and stir their civic pride. As an outsider, accustomed to dealing with wide-awake towns that were prepared to proceed energetically, Mr. Robinson took a view of Jamestown that had not been considered there before. He pictured the town as it actually is, and then showed the people what it might be and ought to be—how good their opportunities were for making a strikingly beautiful and lovable city. With argument and appeal the report so set the matter before the park commissioners and taxpayers that a new view of the former's role had to be taken, and the commission is now likely to become a good deal more of a factor in the town's development than anybody had anticipated. The report discusses various matters besides parks and their sites, though there is little of special architectural interest. The location for a civic centre is pointed out; but with the large cost it would involve and the other pressing necessities it is not strongly urged. It has proved one of the first suggestions, however, to fire the popular imagination.

CINCINNATI PARK PLAN

Interesting, and promisingly effective, as is the remarkable "billboard campaign" which has been undertaken by the Business Men's Club of Cincinnati, the new park plans mean even more to the city. They are constructive in their promise, as opposed to the destructive campaign, and every victory won for them is permanent in its conquest, as the other victories may not be; and here each advance is visible where in the other case it is invisible. But it means much to Cincinnati that alike in the two campaigns the business men have been the leaders. Under the stimulus of a citizens' advisory committee, the committee on parks of the public service board engaged George E. Kessler to plan a park system. He charged them a big price, went at it thoroughly, and has laid out a very comprehensive, elaborate and attractive system. If, with tireless courage, Cincinnati some day carries it all out, the city of hills and beautiful suburbs will be also a city notable for its parks. The three most distinctive features are the use of the very steep hillsides, which are all pervading, and now for the most part bare except for billboards, so that park loveliness will nearly always be in sight; the construction of a drive or parkway up the hills that parallel the Ohio River revealing long views of that; and the transformation of the central portions of the Miami and Erie canals into a great parkway that shall bring the park approach into the very business section. For this latter purpose which is the most daring feature of the plan the canal proper is diverted so that its commercial purpose may still be served, while the old bed and embankments are made interesting portions of a parkway which in directness and centralness of location will be probably unrivaled by that of any other American city. Cincinnati seems to be really in earnest, and goes this winter to the legislature for certain enactments that will simplify the prosecution of the work.



FIG. 13. PLAN AND PERSPECTIVE OF THE AVENUE DU BOIS DE BOULOGNE.

THE BRONX CHURCH HOUSE

It is not often, unfortunately, that our architects display in their buildings an ability to appreciate the nature of materials. The frequent architectural misuse of the same prompts us to point with force at an example in which materials are faithfully treated. Such an opportunity is offered in the building which we illustrate herewith. It is the Bronx Church House which was recently opened at 171st Street and Fulton Avenue, in the Borough of the Bronx. Its purpose, as explained by the architects, is to serve as a clearing house of church work, a headquarters for the religious, sociological and settlement work of all the Episcopal parishes of the Bronx, under the control of the Church House Foundation of the Diocese of New York.

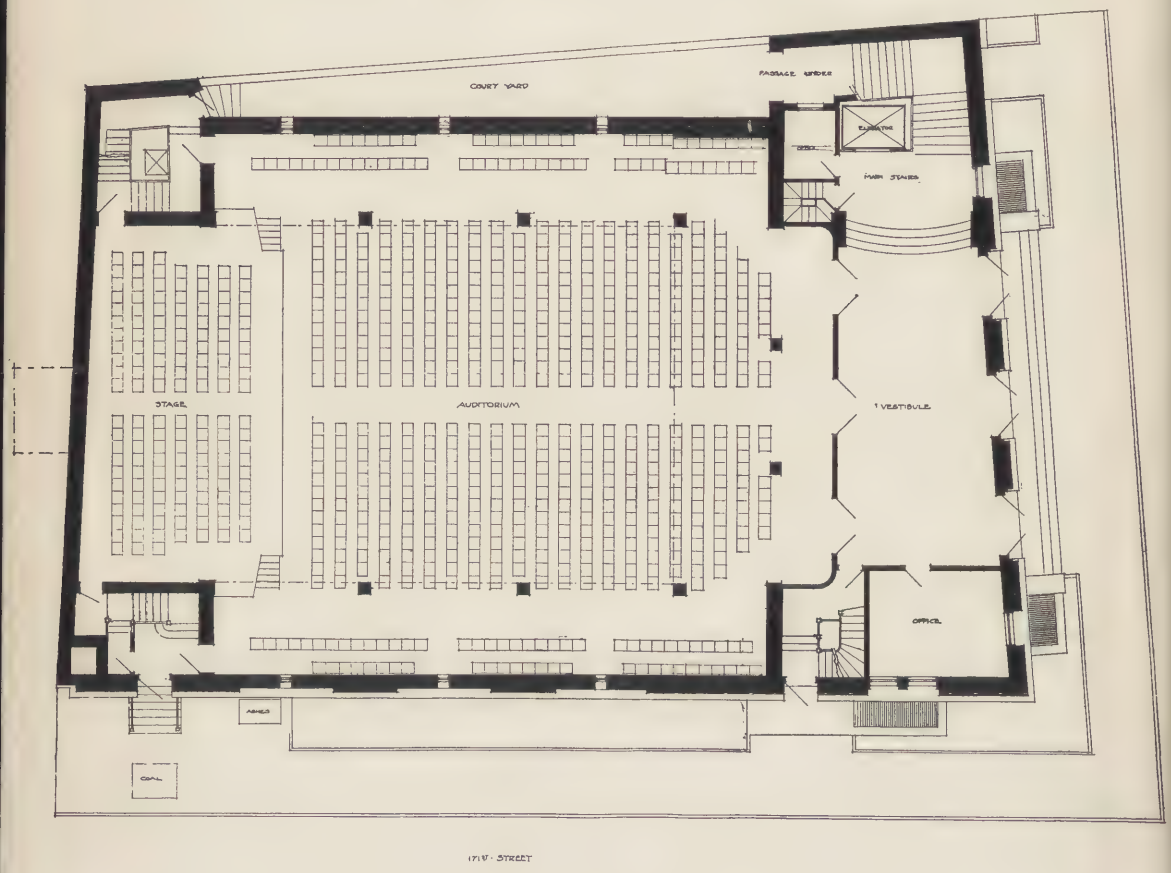
With this information at hand a brief examination of the building cannot fail to reveal to the examiner some matters of more than casual interest. In the first place the entire skeleton is of reinforced concrete, even to the roof trusses and staircases. But the use of this material in the structure of a building is no longer a matter to attract general attention, because the structural problems that come up in such a building are simply those which have recently been solved many times in New York. Moreover, the status of reinforced concrete construction has been fairly well established there. We can therefore dismiss the construction without further comment, except to call attention to the desirability of using it in a building of public assembly where the maximum care has to be taken to protect the inmates from fire.

It is the exterior treatment of this building that chiefly concerns the seeker after interesting architectural effects which are obtained by simple means. The walls are practically smooth surfaces unadorned, save for the horizontal bands of polychrome terra cotta which contrast pleasingly with the light colored bricks of the wall. The placing of four crosses between and above the entrance arches very fittingly indicates the purpose of the building, while the marked projection of the cornices gives the requisite play of light and shade in which the balconies very ably assist. The architects have availed themselves in the design of the Bronx Church House of the most potent means which are at a designer's disposal to produce architectural effect, namely, color, light and shade, and to a certain extent massing. The building as it is shown in Figure 1 clearly divides itself into two masses, that containing the auditorium and gymnasium at the rear and the other somewhat lower in height and embracing the entrances and the smaller rooms that face Fulton Avenue. Only two strong horizontal lines have been used to unite these two masses, the white marble base course and the colored terra cotta string course which divides the height of the building into two almost equal parts between the third and fourth floors. The placing of this band so near the middle of the height was not, it may be mentioned, an arbitrary act of the architects since it marks the height of the most important room in the building, the large auditorium which seats almost 1,200 persons and occupies with the vestibule, stairs and elevator, the entire ground floor, and runs up through the second and third floors. This explains, if it does not justify, the equal horizontal divisions which are most noticeable on the avenue side of the building. On the street side the increased height of the rear mass above the front mass results in a rather pleasing division in which the effect is enhanced by the ample wall space above the arches in contrast with the very deep shadow cast by the cornice over the frieze of windows directly below it. The street side is, in fact, more satisfactory in its composition than the front or avenue side, which lacks something stronger than the slightly projecting brick piers to effectually tie together the three bays of mullioned windows of the fourth, fifth and sixth stories. The admirably designed balcony on its graceful brackets does not accomplish this, nor do the terra cotta ornaments directly under the cornice. We do not mean, however to lay too much stress on this detail of composition in estimating the quality of the design which shows considerable merit and appreciation of what is good in architecture.

SPRINGFIELD LIBRARY COMPETITION

There can hardly be surprise that the directors of the City Library in Springfield, Mass.,—where, with the Court Square extension, the Civic Center and the Riverfront project, so much public improvement work is under consideration—decided to postpone for a time the actual construction of the new Library. But at the meeting held some six months ago the successful architect was chosen and the perfecting of the plans was ordered. The examination was rigorous, being a combination of open and selected competition, in which plans were passed upon by several committees. The two sets of plans

that were best liked of the general competition were placed with the plans submitted by five especially invited architects, to be passed upon by Prof. Hamlin, of Columbia, Librarian Wellman and Nathan D. Bill, of Springfield. The committee's choice was unanimous, and the seven plans went to a building committee, with the jury's recommendation of "No. 3." This committee approved of the same plan, and the seven then went to the board of directors, whose decision was to be final. The directors also were unanimous in their choice of "No. 3"—a remarkable unanimity considering that every plan must have had certain attractive points of its own—and it was found that the chosen architect was Edward L. Tilton, of New York, one of the invited five. The building is Italian Renaissance, a good deal on the style of the Boston Public Library. It is to stand on State Street, twenty feet nearer the street line than the present building, and its 220 feet of length will completely shut off a view of the Art Museum from the State Street side, so throwing the latter structure into its correct position and bringing nearer to realization the beautiful quadrangle conceived for the rear. The cost of the structure is estimated at $290,000. Mr. Bill pleasantly surprised the directors by announcing that Mr. Carnegie, whose original gift of $150,000 was extraordinary because unconditional, had increased the amount by $25,000. No announcement was made as to how much of the remainder was in sight.



BRONX CHURCH HOUSE—FIRST FLOOR PLAN.
171st Street and Fulton Avenue, New York. Bosworth & Holden, Architects.

ST. LOUIS CIVIC LEAGUE

Among the annual reports of local improvement societies, perhaps none is so remarkable as that for 1907 of the Civic League of St. Louis. This is the organization which issued "The City Plan Report," described in this

magazine last winter as one of the most comprehensive and elaborate that has been issued. The like breadth of scope and vigor of action is evidenced in the newer record, "A Year of Civic Effort." Yet there is printed on the cover, be it noted, as expressing the League's conception of its duty, the words of Lyman Abbott, "On these municipal questions let there be light, not heat." A few details only can be given from the report. The year's membership subscriptions exceeded nine thousand dollars, as compared with forty-four hundred dollars the previous year. The expenses, though exceptionally heavy owing to the City Plan Report, were nearly two thousand dollars less than the income. In the current year, it was thought this local civic improvement society would expend an average of a thousand dollars a month, and receive probably more than that. Yet it does not solicit large gifts, preferring the support of many members of moderate



BRONX CHURCH HOUSE.

171st Street and Fulton Avenue, New York. Bosworth & Holden, Architects.

means to the generosity of a few of large means. As a result it stands for more in the community and commands a greater respect, the president declares, than ever before. This is due partly to the great care that has been exercised in making appointments to the nineteen committees. The peculiar fitness of each appointee is scrutinized, with the result that the reports are recognized popularly as authoritative. "Civic beauty," says the League's president in his annual address, "is not a poet's dream —not a mere ideal toward which we should strive without hope of reaching the goal! It has become essential to the permanent commercial and industrial prosperity of great cities. We have passed the period of pioneering when everyone is ready to endure hardships and discomforts as matters of necessity—and live upon hopes and prospects of the future. The American people are determined to have more comfortable and attractive surroundings and in the migration toward urban centres they are going to seek homes in those cities whose civic orderliness and comfort prevail to the highest degree." He illustrated his point with various instances; though of his original contention the report of the League is of itself the sufficient evidence.

MODEL HOUSES FOR EMPLOYEES

W. D. P. Bliss, the Secretary of the Garden Cities Association, has prepared a list of "model" employees' communities already developed by American manufacturing companies. It should be explained that the qualifying word "model" does not refer to villages or settlements, but to the employees' houses, and that, even so, it is only a relative term—each house being compared to that in which the operative might be expected to live if the company had not made possible the better one. In some instances, the settlement throughout is relatively a model, as at Hopedale; but that is not necessarily the case. The table, as Mr. Bliss presents it in "The Village," contains the names of only fifteen companies. Very likely it is not complete, and one must hope that it is not — though the independence of the American workman will never make this particular kind of social assistance really common. Probably the list includes all the larger experiments of the kind. In five out of the fifteen cases the number of dwellings is not given. In the remaining ten, it totals to 3,832, the individual number varying from fourteen houses erected by the Nelson Valve Co., at Wyndmore, Pa., to a thousand single story houses erected by the Pelzer Manufacturing Co., at Pelzer, S. C. With the exception of the latter, and the hundred houses of the N. O. Nelson Co., of St. Louis, all are two stories, except some of those at Whitinsville, Mass., which are three. The Pelzer houses rent for only $2 a month; and a few belonging to the Niagara Development Co. at Niagara Falls at as high as $37. The rent of the others is from $7 to $15, with $12 perhaps a fair average. A twenty-four foot square would be probably an average size. No doubt it is safe to surmise that a great majority of the houses thus erected have been designed by competent architects who have made an effort to obtain an artistic and pleasing effect, and who have been genuinely interested in the problem presented. Under ordinary conditions, a majority of the houses for this number of operatives would have been planned by builders who had had no architectural training; and who, if they had been wise, would have made no attempt at artistic effectiveness. Thus these several thousand workingmen's homes do a sort of missionary work, raising the visible as well as the actual standard of living, and helping others besides the men and women who live in them. From the standpoint of trade unionism, there could, indeed, be a good deal said for the unions themselves taking up this work, of which employers have as yet done so little.

HINTS FOR VILLAGES

Ernest C. Peixotto contributed to Appleton's some months ago an article on "Village Art at Home and Abroad," which was full of suggestions for municipal art if one may use that term as applied to little towns. Moreover, the article was interestingly illustrated by the author's own drawings. "Each town," says Mr. Peixotto, "should seek its distinctive feature and make the most of it." He cites Gondinet's *mot*, reproaching a town dowered with a volcano for letting it go out—an instance, by the way, that should have been called to the attention of those good citizens of Honolulu who were only saved by the timely advice of an outsider from making a flower bed of an extinct volcano. Referring to street plans, he commends that of the Garden Cities of England; then he praises the English hedge rows and the squares or Commons of England and New England. In Britain's older towns the Market Cross was "a feature that has always remained an ornament." It had

no religious significance, being merely meant to punctuate the central spot of the town—the crossroads—from which distances were measured. Sometimes it had rich Gothic traceries and statued niches. He tells of the measures taken to preserve interesting old architecture, and praises the imposing water-front of Antwerp and its handsome railroad viaduct, the stone balustrade on top almost masking the trains and narrow parkways skirting the base. At Ghent, "the happiest thought of public art," he thinks, "is the flagpole that stands in front of the Museum of Fine Arts. It was designed by Jules Van Biesbroeck, and stands on a small marble base at the summit of a circular mound of grass. Two strong men of bronze, almost nude, their muscles strained to acute tension, by the great effort they are making, are planting the tall mast securely in the earth, bearing with all their weight upon the pole." In Germany, he tells us, the Verschoenerungsvereine, or Beautifying Societies, "have become a national institution. Almost every little town possesses one, composed of the butcher, the baker and the candlestick maker—all the petty tradesmen—and presided over by the apothecary, the notary, the doctor, or the mayor." From his description, they are a good deal like our own village improvement societies, sometimes in undirected zeal doing as much harm as good. But one good thing on which they specialize is the increase of the accessibility and invitation of neighboring natural beauty, by building easy paths, constructing seats, etc. The author pleads with our villages to improve their waterfronts and notes that, in general, their chances for gaining satisfactory results are better than are those of the cities.

THE LANDSCAPE ARCHITECT: HIS WORK AND HIS CLIENT

Within fifteen or twenty years there has arisen and greatly increased a group of practitioners of what is to all intents and purposes a new art. The American Society of Landscape Architects, founded in 1899 with ten members, now has about fifty members who have agreed to practice their calling as separate and different from that of the architect of the house or other building and under a code of professional ethics similar to that of other architects in good standing. They profess to treat the outdoor scene exclusively, using as their materials whatever may be available and essential, whether buildings, lawns, shrubs, trees, flowers, garden furniture, water in the form of ponds, streams or lakes, and the near or distant prospect, and aiming to unite the various elements into a composition satisfying in effect and convincing in style. The advent of the landscape architects as a body may be considered to be contemporary with the increasing perception of the relative value of the two styles of treatment of the outdoor problem—the formal and the informal; with the awakening to the fact that neither is always right or wrong, but that each is better in its place and that it is the business of the artist to see and apply the style best suited to the conditions before him; to use the two styles in conjunction when necessary, and in such a way that each enhances the effect of the other. Out of this there have arisen new applications of the principles of design, and new combinations of materials. The rise of the landscape architect not as a notable individual here and there, like Le Notre, Brown, Repton, Andre, Alphand, Parmentier, Olmsted, but as a body of increasing effectiveness and coherence, is therefore merely a response to the natural demand for a set of specialists to assimilate new knowledge and fulfil new wants, to use the great modern resources of vegetation that will thrive in the United States in a work of art to which the mason, the sculptor, the carpenter, the iron-worker, the engineer or the grader may have contributed.

Now the man who has fused the work of some or all of these heterogeneous artists and artisans into a whole which he need not be ashamed to call his own, must be more than an artist; he must be an organizer. He must personally have a more or less intimate knowledge of these various crafts and be able to think and design in terms of his materials. Most of all must he be able to think and design in terms of the almost endless varieties of form, hue and texture of foliage and flowers, the most fascinating in the control of any artist, but also the most uncertain, whimsical and elusive. Finally, he must be able to present the sum of the various labors in a shape sufficiently definite and near to perfection to justify his sending in the bill to the man who ultimately makes it all possible—the client. All this does not differ in principle from the procedure of the architect proper, but though the work of the latter is usually more complex, it is easier to handle in the long run because of his materials than that of his brother-in-arms who works entirely out of doors. The materials of the architect are artificial, definite, and unchangeable except by voluntary alteration and the slow pro-

cesses of decay; his processes are reduced to the state of exact science, and, if they fail, the failure is due to neglect or ignorance. When his building is completed, it is complete and perfect, leaving nothing to the imagination or to patient fulfilment. But paradoxical as it may seem, when the work of the landscape architect is finished, it is only just begun. Nothing can complete it but time and patience, and usually plenty of both. He plans for the future, and sees a vision that may materialize in two, twenty or fifty years. (It is always interesting to visualize backward and speculate on what the gardens of Italy or the parks of England must have looked like when they were first made.) Then as soon as his back is turned various causes arise to modify or mutilate his work before it has had time to develop. The processes of change are so simple, easy and so tempting. It is so easy to yield to the beguilement of the plant agent or the nursery-man's catalogue and order in two of this or a dozen of that and bestow them where the owner or the gardener thinks they "look well," but where they have no relation to the general scheme and are hopelessly out of place and scale. It is a deplorable fact that almost every man who has owned a lot and planted a bush—especially if it is forty years ago—thinks himself an authority on all matters of outdoor design, planting, grading and such operations, and will oppose the instructions of his paid adviser and alter his work—sometimes before it is completed.

Such conditions as these, and the fact that so much of the actual construction in landscape work can be carried out by unskilled labor with someone to boss it, inclines many a client and even many a commission responsible for public work, to believe that, the plans once received, the landscape man and his deputies can be dispensed with except perhaps for occasional visits. It is only natural for the overseer to take sides with the man who pays him, with the result that the designer has often to fight both his client and his client's overseer; and only those who have tried to stand between a client and his instinct of artistic self-destruction know what power this instinct has when reinforced by the instinct of the overseer for holding his job. Also only those who have fought such a combination know how the influence of the overseer is strengthened by his ignorance.

When the designer has turned his work over as finished, as likely as not there succeeds to the overseer the professional gardener who will tell you proudly that he who is pathetically ignorant of the principles of design, is "tasty" in gardening, and therefore considers himself qualified to pass patronizing or contemptuous opinions on the work of the architect either of the house or the grounds. If not restrained, he will start to "improve" the design, to put specimen conifers into the lawn, inoculate the place with eruptions of gaudy bedding plants, insinuate fancy shrubs and trees into unsuitable places, and in short drive the unhappy landscape man nigh to desperation when he comes round later and sees what will henceforth pass as his work. It is only fair to mention that there are rare and admirable gardeners who will use great skill and natural taste to develop the design, not to mar it.

Another peculiar difficulty of landscape work is the apparent impossibility of fixing any general scale of charges. This is due to the very diverse conditions of the work itself. For public parks or formal gardens, a percentage, varying from five to fifteen according to the character of the work done, may serve very well. In another case a man may charge a fixed price for his plan, so much for personal visits with percentages on materials purchased, on contracts for construction, assistants furnished, and so forth. Perhaps no two men have in all cases the same system of charging; each develops one to suit the idiosyncrasies of himself, his work and his clients.

Added to all this is the uncertain and fitful behavior of the plants which can never be depended on to do just what is expected of them, and which will grow taller or shorter than expected, will languish and even die untimely, for conditions in no two localities are exactly alike, and will often differ on adjoining lots. All these uncertainties combine to mean that if the designer of the landscape is to turn out a piece of work that is satisfactory to himself, he should have some effective control over it for not less than three years after it is nominally finished.

All trades and callings have their own troubles when it comes to delivering the goods and getting the bills paid, and men of all professions who sell advice only, have the troubles that arise from the reluctance of the average man to pay for anything that cannot be measured in feet, pounds or gallons. But the supposedly—and really—poetic calling of the landscape architect has so many difficulties, that he may be forgiven if he sometimes gives way to the belief that he has a harder row to hoe than any other artist who has work to do.

H. A. C.

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